NATIONAL TRANSPORTATION SAFETY BOARD

IN RE:	
THE EL FARO INCIDENT OFF THE COAST OF THE BAHAMAS ON OCTOBER 1, 2015	NTSB Accident No. DCA16MM001

Interview of: DONALD R. MATTHEWS

Wednesday,
December 2, 2015

TOTE Maritime

Residence Inn
Jacksonville, Florida

BEFORE:

ERIC STOLZENBERG, NTSB

This transcript was produced from audio provided by the National Transportation Safety Board.

APPEARANCES:

On Behalf of the U.S. Coast Guard:

CAPT JASON NEUBAUER
Office of Investigations & Analysis
U.S. Coast Guard Headquarters
2100 Second Street, SW
Washington, DC [redacted]
[redacted]

[redacted] U.S. Coast Guard
Prevention Division
Eighth Coast Guard District
500 Poydras St
New Orleans, LA 70130
[redacted]

[redacted]
Traveling Marine Inspection Staff
US Coast Guard Headquarters
2100 2nd ST SW Stop 7355
Washington DC 20598-7355
[redacted]

KEITH FAWCETT
U.S. Coast Guard

On Behalf of TOTE Services:

LEE PETERSON
Director, Marine Safety & Services
TOTE Services
[redacted]

JIM FISKER-ANDERSEN
TOTE Services
[redacted]

KEVIN STITH
TOTE Services
[redacted]

On Behalf of ABS:

LOUIS O'DONNELL
Assistant Chief Surveyor
ABS Americas Division
[redacted]

AL SHEPHERD, ABS
ABS Americas Division
[redacted]

PRESENT ON BEHALF OF THE INTERVIEWEE:

GIL FELTEL, ESQ., Tanner Bishop
ROBERT DEES, ESQ.
STEPHEN P. KYNE, ESQ., Burke & Parsons
ELLEN SILVER, ESQ.
MIKE TANNER, ESQ., Tanner & Bishop Law Firm

TOM ROTH-ROFFY, Investigator-in-charge, NTSB

KENNETH BRAGG, NTSB
JON FURUKAWA, NTSB
MIKE KUCHARSKI, NTSB
DENNIS BRYSON, ABS
LESLEY STOCKER, Portus
PAUL WEBB, U.S. Coast Guard
DOUG STARK, U.S. Coast Guard
[redacted] U.S. Coast Guard
MELISSA SERRIDGE, TOTE Services
ERIK GARZA, ESQ., ABS
MIKE MILLAR, ABS
PATTY FINSTERBUSCH, TOTE Services
DENNIS O'MEARA, TOTE Services
JEFF STETTLER, USCG
TOM GRUBER, ABS

P-R-O-C-E-E-D-I-N-G-S

1:00 p.m.

CHAIRMAN STOLZENBERG: Okay. Good afternoon. My name is Eric Stolzenberg. I'm with the NTSB Office of Marine Safety. I'm in the Naval Architecture and Marine Engineering Group, and today I'm representing a naval architecture group on the accident El Faro.

Today is December 2nd. It's 1300, and we're here at TOTE Maritime.

The interview today is with Mr. Don Matthews. And, Mr. Matthews, could you spell your name for the record?

MR. MATTHEWS: My first name is Donald, D-O-N-A-L-D, middle initial R, last name Matthews, M-A-T-T-H-E-W-S.

CHAIRMAN STOLZENBERG: Thank you. And also present in the room and a single individual on the phone, we'll now move clockwise, if you could just state your name and who you represent?

MR. FELTEL: Gilbert Feltel, Tanner Bishop Law Firm. I'm here as Mr. Matthews' representative.

MR. [redacted] I'm [redacted] with the Coast Guard. I'm a member of the Nautical Operations Group.

MR. O'MEARA: Dennis O'Meara. I'm with TOTE Services.

MR. GRUBER: Tom Gruber, ABS.

MR. [redacted] from the Coast Guard in the Nautical Operations Group.

MR. PETERSON: Lee Peterson. I'm the TOTE party coordinator.

MS. FINSTERBUSCH: Patty Finsterbusch, TOTE Services. I'm in the Survivability Factors Group.

MR. STETTLER: My name is Jeff Stettler with the U.S. Coast Guard in the Naval Architecture Group.

CHAIRMAN STOLZENBERG: And on the phone via teleconference?

MR. KUCHARSKI: Hi, this is Mike Kucharski, Group Chairman of the Nautical Operations, NTSB.

CHAIRMAN STOLZENBERG: All right. Thank you. The NTSB is an independent federal agency. We're charged with determining probable cause of transportation accidents and promoting transportation safety. We're not part of the DOT. We're not part of the United States Coast Guard. We have no regulatory or enforcement powers.

The purpose of this investigation, from the NTSB's standpoint, is to increase safety. It's not to assign fault or blame or liability. However, we cannot

guarantee confidentiality or immunity from legal or license actions.

We would like to record the interview, as previously discussed. And I just would ask if you have any objection to it being recorded and a transcript --

MR. MATTHEWS: Yes, recording is fine.

CHAIRMAN STOLZENBERG: Thank you. We also give you the opportunity to review the transcript and make corrections for accuracy.

You can have a representative of your choice. Your representative may not testify for you, and the comments should be limited to objections. Objections are not grounds for the NTSB to refrain from asking questions. I just would check if you have a representative of your choice?

MR. MATTHEWS: Yes, my representative is present.

CHAIRMAN STOLZENBERG: Okay, thank you. Please answer all questions to the best of your recollection or knowledge, and, if you don't understand a question, please ask to have it rephrased. We'd like to get it right. If you realize you misstated, later in the interview, that you misstated something or you'd like to clarify it, again, please feel free to tell us that you feel differently or a different recollection.

And we'll kick off the interview. What is your current job title and your current employer?

MR. MATTHEWS: I'm the Marine Operations Manager for TOTE Maritime Puerto Rico.

CHAIRMAN STOLZENBERG: How long have you been in that position?

MR. MATTHEWS: In the marine manager position, approximately three years. I've been in the Marine Operations Department since April of 2008.

CHAIRMAN STOLZENBERG: Would you give a brief description of your background in the marine industry or other jobs you've had related to this current position?

MR. MATTHEWS: Okay. In 1981, I was commissioned a second lieutenant in the Army and went to the Army Transportation Corps. And at that time, Transportation Corps was broken down into Marine Terminal Branch and Highway and Rail Branch, and I went into the Marine Terminal Branch.

After the basic course, I went to open Army base for the Military Ocean Terminal Bay Area, a military traffic management command, the (inaudible), in the Cargo Operations Division. The first nine months, I was with the Freight Traffic Division. After nine months, I went down to actually work the ships,

break bulk ships. I was the assistant pier superintendent. I did that job for approximately --

UNIDENTIFIED SPEAKER: (Inaudible) fast.

MR. MATTHEWS: Oh, I'm sorry, I'm sorry.

UNIDENTIFIED SPEAKER: I assumed somebody else was having the same issue.

MR. MATTHEWS: Okay. So I went to open Army base. I got there about May of 1981. I worked in the Freight Traffic Division of the Cargo Operations Branch, the Military Ocean Terminal Bay Area, for nine months. Then I went as the assistant pier superintendent and did that for about a year and a half. We worked break bulk ships primarily, and we also worked RoRo ships for unit deployments for like the 7th ID and other units, Marine Corps units, and other units that were going to exercises in Japan and Korea. And so I worked the RoRo ships there.

After that, for about a year and a half, I was promoted as the operations officer for the Cargo Operations Branch. That department was under me, so I actually worked those exercises on a slightly larger scale, still working the ships, going to the military bases all throughout the Pacific and deployment exercises also.

After that, I went to the advanced course,

and that was in July of '85. After the advanced course, which was six months, about March of '86, I went to Germany for three years and was in a truck battalion in (inaudible) in Germany. I came back to the States in Fort Lee, Virginia. I went to the Logistics Center, which is in Fort Lee. I worked on an exercise called a log (inaudible) exercise for basically the next four years. We put together a paper exercise, command post exercise, for theater of operations that actually played with the real NATO allies or whatever allies who were in the theater, the real players, not their subordinates but the real players.

I put that exercise together up until I got out of the Army in '92, active duty Army. I got out as a captain in the reserves and made major, was with a mid MIC (phonetic) unit as an individual augmentee, individual mobilization augmentee, IMA, initially at open army base and then with Concord Naval Weapon Station and did that from about '95 to 2000 when I got out completely from the reserves.

On the civilian side, in June of '94 I was hired by Navieras in Puerto Rico, which shipped between Jacksonville and San Juan, as a special commodities supervisor, equipment control supervisor. I got

promoted to equipment control manager after a while. I was still with Navieras when SeaStar bought Navieras in April of 2002.

From 2002 to 2008, I was essentially the equipment control supervisor/manager for the Jacksonville Terminal Blount Island for SeaStar. In April of 2008, I was moved over to the Marine Operations Branch. In July of 2008, I actually started working with the trim and stability program and have been doing that ever since.

CHAIRMAN STOLZENBERG: Okay.

MR. MATTHEWS: And about three years ago, I was promoted to, I went through a marine cargo specialist to port captain to the Marine Operations Manager. The exact dates of those changes I don't know but essentially the same job since summer of 2008.

CHAIRMAN STOLZENBERG: 2008. All right. And which group or section do you work in in your current position?

MR. MATTHEWS: Well, right now I'm a department of one, to be honest. I work for Ronald Rodriguez, who's the terminal manager. He's my direct supervisor, but I am the Marine Operations Department now. So as far as a group, that would be, that would be me.

CHAIRMAN STOLZENBERG: Okay, thank you. What are your general responsibilities as Marine Operations Manager?

MR. MATTHEWS: There are several. First, I am the main point of contact for the deck officers, the captain and chief mate, for any shoreside support that they need, either to coordinate and see if they know something that needs to be done, they'll let me know via sat phone or email and say we need this type of support on the shoreside.

The Marine Engineering Department, which is a TOTE Services entity now, they actually handle the mechanical repairs and support that they may need for the Engine Department. That I, in no way, other than I know things go on there, I don't know, but if they need some support, like they need to take on fresh water, when they need to bunker, just any of the sort of the things that they may need support on I'm the first point of contact and I communicate and coordinate with those parties and can make that happen. So I'm basically the pit man for a lot of information coming and going.

I also, when the ship is actually, we're doing cargo operations, I'm the primary person that invents interfaces between stevedore vendor, which is

Portus, and how they want to load the ship. I take that information and put it in our trim and stability program CargoMax to see how that's going to work and let them know, hey, that will work or it won't. And then I keep the chief mate and the captain informed throughout the day of how things are looking as far as, you know, just an overall operation, what time we're going to depart, if something is happening with the cargo or we're going to have a late gate, maybe be there longer so they can plan their SDCW (phonetic) hours. I just keep them abreast of the information as it happens so that they know what's going on so they can plan accordingly.

And similar to all of that, just anything that comes my way I just jump into and take care of. I really don't have a solid border that that's my job or that's not. You know, whatever helps to take care of the ship, take care of the crew, that's what I do.

CHAIRMAN STOLZENBERG: Okay. I've never worked on a container ship or a RoRo. Tankers, cable ships I have. When you say load a vessel, the latter part of your job description, what does that entail? Does that entail off-loading it, on-loading it? Just real briefly, what is a load?

MR. MATTHEWS: For what I'm interested in

loading, our stevedore vendor, planning on where it actually placed the containers or equipment, whatever cargo we have, on the vessel and prior to it actually getting on the vessel, I will put that information into the CargoMax trim and stability program that we have that also has the factors of what ballast we have at the time or may have, you know, what I projected should be, you know, have those numbers into what fuel we have. There's constant factors that are in the program, but I'll put the specific way to the specific piece of equipment in a specific place in the computer to see how it all relates to each other to help ensure that the ship, upon departure, is in a trim and stable position.

CHAIRMAN STOLZENBERG: Okay. And --

MR. MATTHEWS: So I'm not physically putting stuff on the ship. I am simulating that in the computer before it goes on the ship so that, if something doesn't look right, we can re-think our plan on how we're going to do something.

CHAIRMAN STOLZENBERG: All right. And I'd like to get into that more, in more detail a bit later. I'm just trying to define you do the load planning in San Juan or just in Jacksonville?

MR. MATTHEWS: Just in Jacksonville now.

CHAIRMAN STOLZENBERG: So a different individual does it in San Juan?

MR. MATTHEWS: Yes.

CHAIRMAN STOLZENBERG: Okay. And are you concerned with the off-load of the vessel, as well as the on-load, or the on-load?

MR. MATTHEWS: I'm not real concerned with the off-load. We basically strip the ship 100 percent and we start back and load it 100 percent.

CHAIRMAN STOLZENBERG: Okay. And now I'd like to, if, in your own words, and take your time, have a drink of water, I'd like to ask in detail if you could imagine going back step by step. When you get up in the morning, at what time, how do you generally load a typical vessel like the El Yunque or the El Faro, which has roll-on/roll-off cargo and container cargo and I believe even some pumped cargo in the form of fructose tanks or others. If you could just go through that process in your own words, I'd like to hear how it works.

MR. MATTHEWS: Actually, typically the day before the vessel arrives, I will get the information for what fructose tanks are going to be loaded. On the El Faro, we had six fructose tanks. Each tank would hold one rail car's worth of fructose. That comes to

about 75 long tons, 80 long tons of cargo down deep in the tank tops, as it were. Figure the weight of the fructose, as well as the weight of the container that's (inaudible) it, add those together to compare it to long tons and in the computer program place that weight in the systems.

The ballast is normally fixed. With El Faro especially, we had two working ballast tanks, the one (inaudible) and the one a centerline. They normally came up from San Juan full. That was to keep, the design of the ship, that was to keep the bow down. We couldn't keep those full going south because that would put the bow down at the head, as well as it taking up a lot of available deadweight that we wanted cargo to go.

So keeping those two numbers in mind, and this is going to the second day now, the day of the ship arrival. Upon bunkering, I'd get the fuel figures from the chief engineer on how much fuel was in what tank by the long ton, plug those figures into CargoMax, and now I've got the fructose numbers in there and I have the fuel figures which are in there, estimated departure fuel figures which would be very close to what they were because the chief engineer knows how much they had onboard and about how much they would burn while they're in port, so those are very close

numbers.

Typically, with a full vessel, I knew what to expect in the way of container weights on the RoRo deck to project as a planning figure, what weights to put in. I could go from the two Alpha -- you don't have the chart here, but the second deck, the main RoRo deck where the ramps are, the ramp goes on and there's two Alpha, two Bravo, two Charlie, two Delta, Echo, and Foxtrot. And going through those on the second deck, when we started -- Verizon (phonetic) Lines went out of business, our reefer count, refrigerated containers, volume skyrocketed, and those are pretty heavy loads.

So on the second deck, I figured every container going on that deck would be 30 long tons. That includes the container weight, the cargo that's in it, and the chassis that it's with, the roll-out box that holds the chassis together. Each of those were planning figures, about 30 tons. And at the end of the day, that's pretty close. Some are a little more, some are a little less.

On that deck in 2A, we can put six containers; 2B, about 11 containers; 2 Charlie, 14 containers; 2 Delta, 14 or 15 containers. Again, this depends on the links. Some are 40, some are 45, some are 53s. Two Echo we put four containers, and in two

Foxtrots about ten containers.

Intermingled with all that would be what we call NICs, which are not-in-container cargo, and that could be anything from a jet ski, you know, which may weigh, you know, 800 pounds to 1,000 pounds on a trailer to a Caterpillar on D1 that ways 100,000 pounds. I generally figured there are some places on those decks where we could only put NIC cargo, and I figured on the second deck usually about 12 or 15 pieces of that at about 5 tons a piece just as a planning figure. And also, up in 2 Bravo, we got the ramps, when it used to be a strictly roll-on/roll-off ship, we could put eight cars. We figured cars at one and a half long tons a piece. I figured that on the second deck.

The third deck we could put seven containers. I figured on the third deck about 25 to 27 tons of container because we couldn't put reefers on the third deck because there's no reefer plugs to plug them into. The reefers are the heaviest cargo we have. So going four and a half on that and three off, about seven containers, 3 Bravo would be eight cars going up the ramp, about 11 containers. 3 Charlie would be 14 containers, and 3 Delta would be another 14 or 15 containers. All, I figured 25 to 27 tons.

There is, 3E is a ramp going down into what we call the five hold (phonetic) behind the engine room. That's actually a ramp going sort of through the engine room, I guess it would have been, for lack of a better term, going down. We can put ten cars down there. And then in 3F, what we would call the five hold, would be about another 30 cars.

Going to the bottom deck, 4A, was the two fructose tanks, so that's fixed. You can't get anything else in there but the fructose tanks. 4 Bravo, there's four fructose tanks there, two in each wing. We could get basically two containers and four cars in there after the fructose tanks were put in. 4 Charlie, figure two containers, 30 cars; and in 4 Delta two to four containers, maybe another 30 cars. So all those containers weighs 25 tons, the cars all one and a half long tons.

On the main deck, so that's all the RoRo decks.

CHAIRMAN STOLZENBERG: All right. Can I pause for a moment there and ask a question? And we're describing the El Faro when you describe the fructose tanks and this load right here?

MR. MATTHEWS: Yes.

CHAIRMAN STOLZENBERG: Okay, thank you.

Sorry to interrupt. Please continue.

MR. MATTHEWS: Yes, the fructose tanks on the El Faro were fixed. They were actually welded to the deck.

CHAIRMAN STOLZENBERG: All right.

MR. MATTHEWS: The fructose is pumped in through a piping system and are pumped out in San Juan through another piping system. There was no container movement of that cargo.

CHAIRMAN STOLZENBERG: Thank you.

MR. MATTHEWS: On the RoRo decks, I'd actually have to have a chart to remember how it all went.

CHAIRMAN STOLZENBERG: That's okay if you can't recollect it. In general is fine.

MR. MATTHEWS: In general loads, we could only go three high on the very front bay, four hold bay, we could only go two high due to line of sight from the bridge. So we'd go two high pretty much on reefers, so I figured maybe 23 tons for both wells of those tiers.

The rest of the ship all the way back, from 2 all the way back to 19, technically or physically go basically three high with loaded containers. We have a stack weight limitation on (inaudible) class ships of

120,000 pounds per stack. In (inaudible) cases, I would figure that in and convert those pounds to long tons, and there's a little rounding factor involved in that.

However, we couldn't go three high the whole length of the ship due to the GM margin would be exceeded. If we loaded all those decks with stack weights out to 120,000 pounds, three high, the ship would never sail safely. You know, we just wouldn't let that happen.

So we would have, we worked it out, so we usually left about four or five of those bays only two high. The rest would be three high, and that generally worked out for planning purposes to what cargo we could get on.

Figuring that, the Portus, our stevedore vendor, would supply us some information which he would get from our cargo management department about how many pieces of what size equipment, how many 53s we would be getting, how many 45s we would get, and how many 40s we would get. And based on that information, Portus, the stevedore vendor, would say here's what we would like where to put all these containers on the vessel. That's what I used as far as when I first started where the containers were going in the planning stage, here's

the 53s, here's the 40s, here's the 45s, here's the reefers.

I would stratify my planning weights for the bottom tier generally to be about 23 tons. For reefer bays where we were going two high, I figured both levels 23 tons, and then I'd probably figure about 10 to 15 tons for the third tier.

For the drive boxes, I would say strictly 40-foot dries or 45-foot dries, I figured 23 tons for the bottom tier and 15 tons of the top two tiers. That basically comes to one and a half tons within the limit of what that stack weight is. So when I'd pre-stow the ships, I'd pre-stow them heavy and try to get a worst-case scenario of what that load might look like. So at the very beginning of the day, I could go and tell the stevedores this won't work or this will work. I could get with the cargo management people and say we've got too much freight for this ship based on my planning figures, so they could regroup and figure out, okay, what cargo will we leave behind if it all can't go? So they could get a heads up so they could prioritize what they wanted to go if it came to that.

Once I put all that information into the CargoMax just as my pre-stow planning weights, then I could play, or not play but try to figure out the

working ballast tanks, whether I needed to bring those ballast tanks to both optimize dead weight or cargo weight on the ship and the GM margin that we have. And the GM margin that we shoot for is 0.5 feet, basically six inches, or greater and available dead weight always in the positive in the CargoMax sets. That was the final solution.

Granted, with what I just described, a lot of times in my pre-stow, those safety parameters were exceeded. That's what told me when we had to start changing something and to look at that and I could get a heads up on that. As I go further in the process, I keep an eye on that. Every time I put information into the system, that updated real information replaced the pre-stow weights with the final weights with the cargo in their exact places. I keep a look at those numbers, and, if we have to adjust, based on my planning of what was going to happen, if we had to adjust balance, we would do that. If we had to, all of a sudden, we were planning going three high with the cargo some place on some of the bays up top, say can't do that, at the end of the day -- I'm jumping ahead of myself a little bit -- I would tell the cargo manage people stuff has got to come off, there's just too much stuff to try to get on this ship, for whatever reason, whether the GM

margin was exceeded or available dead weight was exceeded or both. I'd say stuff has go to come off to be in a stable condition. I jumped ahead of myself a little bit there.

So after I have my pre-stow weights in and the stevedores actually start planning the real cargo to go in the real places on the ship, they just started about the time of the El Faro incident to use a system called (inaudible). I believe that was around the same time. It was within a week or two that I was on vacation during the week of the accident, and right around that time was when this new terminal operating system came online, which has absolutely nothing to do with the ship. It's something that we manage the cargo with in the yard, but it's the tool that the stevedore vendor has to see what cargo is available in the yard at that time to place on the ship that's physically there.

With the Puerto Rican trade, we have a live gate. Sixty-percent of our cargo comes in the day of sailing. We don't have the luxury of having the cargo in the yard a day or two days ahead to specifically say this box is going here with that weight and the hazardous segregation. We don't have that luxury. We do this all -- that's why I do the pre-stow weights

because I don't know exactly what's coming in. We're just making the best guess, as it were, as to what's going on and based on past history, you know, about how much cargo would be coming in, what the bookings are.

So as the stevedore vendor in the Spinnaker system, which has a schematic of the ship, says, okay, we want to put these 36 containers on this bay on the low, low decks, 36 at the widest points, 12 container cells wide, we'd put three high, so that's what I'm using to get the number 36 from. Some bays with the 48s or 53s that are wider, it's only 11 wide. And as the ship narrows at the front, it goes down to about seven wide. But for this example, let's say 36 containers, which is most of the ship.

They would give me the weights and what they are, whether they're reefers, whether they're dries, whether they're hazardous. I take that information initially and, in an Excel spreadsheet, I have a schematic of the ship, and I color-code containers by size. The 53s are dark blue, the 48s were red, 45-foot containers are brown, 40-foot containers are light blue. Reefers I mark with either a 4R for a 40-foot reefer or a 5R for a 45-foot reefer. That's important because the plugs are so many places on the ship for each bay, and I got to make sure they're not trying to

put 26 reefers where there's only 24 plugs. If, for some reason, they've lost count between the bays and they tried to put too many reefers where there are too few plugs, I tell them, hey, you got to move this reefer someplace, it won't fit.

I'll also keep an eye on the hazardous segregation just by class. If it's a three-year, a six or an eight or whatever it happens to be, I'll plug that number into the color-coding spot, and that way I can look laterally of that container to make sure it meets the segregation requirements required by 49 CFR. So I could see if a 3 is next to a 5.1 either beside it, which it requires containers separation, either fore and aft or side to side. I could see that we have a 5.1 up in, say, bay 7 and we're trying to put a Class 3 on bay 8 right behind it, and I could tell the stevedore vendor, hey, you got a hazardous segregation problem, that box is already on the ship, we need to plan another place for this one to go on the ship.

UNIDENTIFIED SPEAKER: What is a 3 and a 5 - -

MR. MATTHEWS: A flammable liquid 3 for 49 CFR and a 5.1 is an oxidizer. And in the segregation by 49 CFR, they can't be beside each other. That's just an example of what we're looking for. So I'm

trying to keep all that straight. I'm the double-check. The stevedores are already supposed to do it right. They're all trained on that. But I'm a double-check to make sure that they have complied with the requirements.

They also (inaudible), the printout that I get for the bay plan, once I get that Excel sheet so I have the visual look of what's going on, then I'll plug the long ton weights into the CargoMax program. This is the first time I actually start to enter cargo weights into the CargoMax, and I'll do that individually box by box. And I don't have my chart, I may have a chart in my bag that I brought with me. But a long ton conversion from thousands of pounds to long tons, like 45,000 pounds is 20.1 long tons and 15,000 pounds is 6.7 long tons. And there's stickers that have printed out that are already in the system have already rounded it, like the tonnages, the 33,000 pounds, 34,000 pounds, 35,000 pounds. In the TIS system, I would round those up. In the Spinnaker system that comes out now, there's a drop down where I can automatically convert what they're working at in pounds into long tons. So when I print out the plan that they have come up with, it already has the tons on there and it's rounded to tenths, 24.7 tons, 24.8 tons.

So it's to the tenth of a long ton.

UNIDENTIFIED SPEAKER: What is the TIS system?

MR. MATTHEWS: The TIS was a Terminal Information System that they used in the yard to manage the cargo in the yard prior to the Spinnaker TOS system, Terminal Operating System. It's a terminal management tool.

UNIDENTIFIED SPEAKER: So it's what you used before --

MR. MATTHEWS: It's what we used before to get the information before I typed it into CargoMax.

CHAIRMAN STOLZENBERG: This is Eric Stolzenberg, NTSB. Two things. One, would it help to have, as you recall this, to have a drawing in front of you? We can go off record and put that in front of you. And, two, if we do speak, essentially, out of turn, to state your name for the record so the transcriber can get the right person on record.

MR. MATTHEWS: Yes, a schematic would help if you want specific widths of specific bays and specific sizes.

MR. PETERSON: This is Lee Peterson. I could put that up on the screen, Don, if you know where it's at --

MR. MATTHEWS: Actually, I could pull up -- are you in the Marine Operations T drive?

MR. PETERSON: I can get there.

MR. MATTHEWS: I can actually show you a schematic of that.

CHAIRMAN STOLZENBERG: Well, let's go off record for a moment, and then we'll pull it up. We're going off the record.

(Whereupon, the above-referenced matter went off the record and then went back on the record.)

CHAIRMAN STOLZENBERG: Okay. We're back on the record with Mr. Matthews. Up on the main screen here in the conference room, could you describe what we're looking at?

MR. MATTHEWS: Yes. We're looking at an Excel spreadsheet that I was describing earlier with the color codes for the different container sizes and also identifying hazardous material that's loaded above deck and sizes of reefers and where they are on the main deck of the El Faro.

CHAIRMAN STOLZENBERG: Eric Stolzenberg, NTSB. This is a document you produced yourself in the pre-planning stages of a load or --

MR. MATTHEWS: No, this is actually, I use

this in the actual final stages of, this is the actual places where the containers are supposed to be on the ship. Once I receive the proposed or the plan from the stevedores where they want to put the cargo on the main deck, I plug that information into this Excel spreadsheet. Again, the brown, those are 45-foot containers; the 4R, that's a 40-foot reefer. Down here, it's a 4R or a 5R, it's a 40-foot reefer or 45-foot reefer.

On the El Faro, at the time, we were shipping a whole lot of reefers. We actually put on a power pack in the fuel tank. Both of those are 20-foot. And where it's shaded out, that means there's no cargo there.

On this particular bay, bay one here, we can put either 40s, 45s, or 20-footers, 20-foot containers. So the bay one, that top tier, we could actually put 20-footers there, and in bay 2 down here with the arrows going across, we could also put 20-footers there. But if we put a 40 there or a 45, then we couldn't put the 20s. That's why there are spaces up here. That's a 20-foot position.

On bay 3 and 4, it's the same situation. We could put 40s or 45s single-wide across, or we could double-up two 20s per cell, so the extra cells you see,

fore to the (inaudible) cells or after the (inaudible) cells is actually 20-foot position. So what this is telling you is there's a 20-foot generator and 20-foot fuel tank on bay 3 of this El Faro.

CHAIRMAN STOLZENBERG: Eric Stolzenberg at NTSB. This is El Faro Voyage 184 out of Jacksonville, as noted on the screen. Please continue.

MR. MATTHEWS: Bay 5/6, that's actually a 40 or a 45-foot bay. Again, it's all reefers, and here you can tell there's some 40-foot reefers, there's some 45-foot reefers, and the LR, that's for the lashing rack that goes on at the end of the day for the semi-automatic twist locks that we have, the ones that weren't used.

The light-colored gold here that's coming across gold, that's a 20-foot bay. Bay 7 is all 20-footers. Those numbers within those color codes, that's the hazardous class, per 49 CFR. So the 2.2 is non-flammable gas. You got a Class 3 flammable liquid in that particular block, and you got a Class 2.2 in that particular block.

Okay. So Bay 8/9, that's another 40-foot bay. Again, you can see where the reefers are. The blue boxes are 40-foot dry containers, and the red numbers where the reefers are or the white numbers

where the blue are, those are the hazard classes. This is what our navals need to see from bay to bay to fore and aft that we're not violating any hazardous segregation requirements. There isn't another tool that we really have other than laying this stuff out on paper to do it.

As we go through Bay 10, that's another 40 - 45-foot bay. Again, you can see the containers at three high. You've got two tiers of reefers, and you've got some 45-foot containers on top of the reefers. And, again, there's some hazardous indications there.

Bay 12, that's a very flexible bay. That's where we have some, if you're familiar with the ship, the transfers beams which allow us to put the 102-wide 48- and 53-foot containers on the same bays as 40 and 45-foot 96-wide containers. So in this particular bay, once we put an extra-wide container in one cell, we lose a cell's worth of cargo there, so we can only go 11 wide. So the shaded area is just representative of the cell that we have lost where we cannot place cargo. Then we have our 53s, and we had a couple of tiers of cells with 45s and three cells of 40s.

This doesn't give you the actual depiction that there's a gap between these 53s and 45s, but it

lets me know that we can actually put those containers there and they'll fit on that bay. This is just a tool to make sure that we can actually physically, you know -- we got to keep in mind what we have to things that will actually work.

Bay 13 is a 40-foot bay. We can put 45s on top of 40s, so that's why you see 40s on the bottom two tiers, reefers and dries. And up on top, you've got some 40s and some 45s. The 45s go on the 40-foot locked in at the 40-foot container casting position on the 45 on going on top.

Bay 14, again, is another very flexible bay. We can put 40s or 45s or 53s on that bay. Bay 15 is 40-foots only in this particular case. Again, that's another bay where we could have put 45s on top of them, one and two.

Bay 16, the red is 48s. Again, the shaded area is the void itself because we do have 48s on there and they're 102 wide. And then we have two cells of 45-foot containers. This cell is only two high. In all probability, I can tell you that's because it's probably two very heavy boxes, and we have 120,000 pound stack weight. And if we put another box up there, that stack weight probably would have been exceeded.

CargoMax is where we would see that, the actual weights. This chart is, again, just container size and hazardous segregation and reefer segregation. It has nothing to do with stability. This is just making sure the containers will actually fit in a specific place on a ship.

CHAIRMAN STOLZENBERG: And can I follow-up? Eric Stolzenberg. So this is Excel sheet is something, is this personally developed by you as a tool --

MR. MATTHEWS: It was developed by a gentleman, two guys, Bill Wisenborn (phonetic) and Marshall Cottonbach (phonetic) who were in the Marine Operations Department before I was.

CHAIRMAN STOLZENBERG: And so you're concurrently or at this stage in the load, you begin populating this?

MR. MATTHEWS: I do this first. This is the first thing I do. This way, I can see if maybe we're putting a container where it physically can't fit or if there's a hazardous segregation issue with cargo that's already been placed on the ship or within that bay that they have just done. If you look at the bottom right on Bay 19, say perhaps this one that has both Class 3 and 8 in it, if they put it up against this Class 2.1, I could identify that before it actually went up on the

vessel and say, hey, you've got to move it over to have that container separation, so we get it on the ship right the first time and we're not re-working cargo.

CHAIRMAN STOLZENBERG: Understood. Thank you.

MR. MATTHEWS: So that's the first step I do with any bay. As I get a bay plan for a bay, I will put this in, so this is a work in progress throughout the day also. So I get one bay at a time, maybe two bays, or maybe just a partial bay, depending on how the cargo is coming in. Maybe there's only 12 reefers available at a time and they decide to put those on a bay, I'll identify that and I'll put these on a sheet at a time. Say some 53s come in, but they know they're going to get sixty 53s, but they only have 30 at a time, they'll put some of them on one bay and some of them on another. We even space available for the ones that follow on. But as they let me know that this is what we plan to do, then I can put these in, and this is a work in progress throughout the day. So at the end of the day, when I have all the cargo, to include the lashing rack that was on there which is the last thing that goes out, I'll have everything on this sheet and say, okay, you know, this is working throughout the day.

So once I have a bay or a partial bay and have done this with that information, that's when I will go to CargoMax and plug the weights in to the CargoMax Trim and Stability Program. The CargoMax weight stability program, all it knows, how we use it, we say that we want 40-footers in this bay, 45s or 53s or 48s. We don't differentiate between reefers and dry cargo. It's just a box is 40-feet long or 45-feet long and the associated width with those.

MR. O'MEARA: Don, this is Dennis O'Meara with TOTE Services. When you say you plug the weights in with CargoMax at this point, are you plugging in actual weights or are you plugging in those estimated weights --

MR. MATTHEWS: Well, I --

MR. O'MEARA: -- if it's a reefer container, it's 23 tons. If it's a non-reefer, it's dry, it's 15 tons?

MR. MATTHEWS: I'm replacing the pre-stow weight that you're talking about that I mentioned earlier, the 23 tons to 20 tons to 15 tons, whatever my pre-stow weight is, I'm overriding that with the actual weight that I have per the Spinnaker. If the bay plan comes out, this is a 24.7 ton box in that position, I overwrite that 23 tons with the 24.7. I replace those

weights.

CHAIRMAN STOLZENBERG: And this is Eric Stolzenberg, NTSB. Yesterday, we had the opportunity to do a brief tour of the gentleman working on the Spinnaker program. They had mentioned that those weights they input are from a load cell that a trailer drives over. Is that the weights you're describing, or how do you know those weights are accurate?

MR. MATTHEWS: Those are the same weights we're looking at. If we back up to how the cargo comes in the gate, which is, again, this is separate from what I do, and the specific question was what I do, we can go back to where I get some of that information.

When a driver, a drayman arrives at the terminal with a loaded container to deliver for us to ship to Puerto Rico, to San Juan, they'll have a booking number, they'll have the loaded cargo container, and what other information they have, any hazardous paperwork that they have, they'll drive in and they'll get on our scales that we have and they will be weighed, and those scales are certified and they're checked periodically.

The equipment control people now, this is more Ronald Rodriguez's department, he's the terminal manager, they all work for him. They'll get a gross

weight for that load, tracker, chassis, and container with cargo in it. The TOS operating system that they operate now, when they put in the pieces of equipment number, in each piece of equipment coming in, whether it be a chassis, a container, or a gen set that goes onto a reefer chassis or if it's a (inaudible) that's on there, all those weights, known weights are plugged into the system or are part of that software. So a drayman comes in, has 80,000-pound total gross weight. The computer knows to throw up what weight the container is because of the series of the container. It knows what weight the chassis is due to the series of the chassis. If it has a generator, it knows what weight that generator is. Variable of fuel in the generator, and associated with each truck driver, as they generally only have one truck, the truck driver identifies himself and they have keyed into the system when that driver has first shown up in the system, the max weight of his tractor. Again, there will be a variable sometimes of fuel, and that's really the biggest variable in this whole system.

So when the computer system processes that load and determines the lifting weight of that box, as it were, the weight that is released on the Spinnaker, the stevedore planners see and the ones that I see is

the weight of the cargo and the weight of the container, the total lifting weight. The Spinnaker system, there's a drop-down where you could either have that print out in pounds, which is called, that drop-down is English and that's probably what you, when you were there yesterday, you saw 33,067 pounds, just as an example, or you could print it out in long tons or you can print it out in short tons. You have your three options.

With 120,000-pound stack weight and the way the stevedore planners are used to working, they're used to working in pounds, so they print, they're working in pounds working for that 120,000-pound stack weight. That Spinnaker program that they also have also has alerts to where, if that stack weight is exceeded, the allowable stack weight for the ship, it comes up in red and it says you've exceeded that stack weight by so many pounds or, in the case that I work in in long tons, you've exceeded that allowable stack weight by 0.2 long tons. It comes up in red, and you can see that.

Okay. If they say, okay, when they start loading the containers in that cell, that's an alert to them I've got to do something different. If they miss it, I'll probably catch it. And then you saw my

office. I'll let them know you've exceeded your stack weight, we need to do something different.

But that's where the weight comes from that we're looking at. So I'm fairly confident that they're fairly close. I mean, it's --

MR. O'MEARA: This is Dennis O'Meara with TOTE Services again. Are these keyed entries? Like someone is looking at a readout and punching in a keypad, or is this RFI scan? How is the data actually input --

MR. MATTHEWS: Again, that's more of a Ronald Rodriguez question, but the original, as far as the weights of the pieces of equipment, that's in the system. That is not keyed in by the TIR checker in the room dealing with it. That's automatically computed. The weight scale (inaudible) goes in there, and the computer just, boom, this is everything. This is the cargo weight, this is the container weight, this is the chassis weight. Therefore, and not therefore anymore, but this is now, associated with that driver, this is the tractor weight; so, therefore, here's what your cargo weight is.

CHAIRMAN STOLZENBERG: This is Eric Stolzenberg, NTSB. I hesitate to get you off your narrative because it's been very clear so far, but,

regarding the RoRo cargo, is that also weighed on a scale?

MR. MATTHEWS: All cargo. All cargo comes in the same way.

CHAIRMAN STOLZENBERG: Okay.

MR. MATTHEWS: Regarding the RoRo, which we haven't even started on yet, when that is planned to go on the vessel, the stevedore supervisors that are in our office, there's a separate section that they tell these boxes, these particularly heavy boxes we want to go RoRo because that puts the weight down deeper in the ship. The people that plan that, they have that container weight that is pretty, you know, pretty close to what it is.

So when we plan on loading that on the vessel, they take that container weight, say if it's 50,000 pounds container lifting weight, we will add 8,000 pounds to that weight, and that's to add weight for the chassis that goes with it. And what we call a roll-out box, which when you walked into the ship yesterday you saw those big boxes underneath the king pen (phonetic) of the trailer. So we add 8,000 pounds lifting weight of that box, and that's the weights that are used to compute the total load weight to go on the RoRo decks.

CHAIRMAN STOLZENBERG: Okay, thank you.

MR. MATTHEWS: Okay. So as far as actual container weight, it comes from the same source. And after it's in there, then it splits, and you have to go lift-on/lift-off or roll-on/roll-off.

CHAIRMAN STOLZENBERG: Okay. Eric Stolzenberg. Get back to where you were.

MR. MATTHEWS: (Inaudible) where I was.

CHAIRMAN STOLZENBERG: Yes, thank you.

MR. MATTHEWS: So when I start putting the numbers into CargoMax per container weight, we're still talking only lift-on/lift-off right now, I will put the specific container weight into the specific cell in CargoMax. So in this particular case, if it's Bay 19, 01 Cell, 82 Tier, which is the center one on the bottom row right there, in CargoMax I'll put whatever weight is on the Spinnaker plan that I printed out that I've already put into here, I will put those weights in starting left to right coming across, you know, 23 tons, 24.7, 18.5, whatever it happens to be, every weight in every cell on that bay.

Once I have done that, the CargoMax program will indicate whether or not we've exceeded any stack weights and it also tells me whether we've exceeded any lashing margins, which is something that is built into

the program. I don't know exactly the math again. We did a little bit, but I'm not a marine architect or a naval engineer or anything like that. I trust the program to compute the lashing margins (inaudible) engineering put into the system. So if it says I exceeded the lashing margins, I don't have to know why. I just got to tell the guys next door, the stevedore supervisors, we've exceeded the lashing margins and we need to do something different. If they have it stratified properly, say during the day, you know, we had 12 reefers and they put 12 reefers on the bottom tier, later on in the day 12 more reefers come in, they put those on the second tier, but some of those reefers are heavier than the ones on the bottom, that's all fine and well. It may affect things later on. And if you put another box on top of those and the lashing margin is exceeded, then we've got two choices, and I can computer that into CargoMax. One, take the top-tier box off and put a lighter one there. Two, re-work the whole cell but take all three boxes off and put the heavier one on the bottom, put the medium weight in the middle, and put the light weight on the top so we stratify properly, maybe that will satisfy the lashing margins.

Regardless of what we do, at the end of the

day, we're going to have the lashing margins, they won't be exceeded on that. The CargoMax is a tool I use to see that. It will also tell me whether we've exceeded the 120,000-pound stack weight limit across. Again, same process. Let's figure something else out where it will work. We do that all throughout the ship.

At the same time, while all this is going on, I have my pre-stow weights per bay that we talked about earlier. I'm replacing them with actual weights. I keep a close eye on the CargoMax, which I'm making the assumption you all have looked at that somewhat. You know, the right-hand column on that, you got your bending shear moments, you have available dead weight, you have your drafts. So it's a running summary of the condition of the ship at the time.

The way I pre-stow, those numbers generally get better throughout the day. I'll have more available dead weight than I pre-stowed, my GM margin will be better than what I pre-stowed, and I'll keep an eye on that. As things are getting better, I'm very comfortable in, okay, it looks like we'll be good at the end of the day. I may have to adjust the ballast or recommend adjustment of ballast from what I initially, what the chief made the captain, say I

thought it was going to be sort of a medium load and I told them to keep 300 tons, in the case of the El Faro, say 300 tons in one A-center line and bring the one B (inaudible) down to 150 tons. I forget the actual tonnage that they actually hold. I think the one A-center line is like 570 tons. I'd say bring it down to 300.

It may later, at the end of the day, going through the process, I got plenty of GM margin available, say it's in the 0.7s, but my available dead weight is down about zero, I'd says, well, let's take out 200 more tons of ballast, and that will give me available dead weight to work with for cargo. It might bring the GM margin down to 0.6 something, but that's still within the allowable safety margins that we like. So it's a balancing act between the cargo and the ballast and the fuel and the fructose during the day. So as I'm putting the weights in CargoMax, I'm keeping my eye on that to see how that's looking.

So that's a short summary of what we do, lift-on/lift-off. It's just every cell 400-some odd times. There's approximately, we can get about 400 containers on top, depending on weights, depending on GM margin. If we got a lot of heavy reefers, it might be only 370. If we got a lot of light boxes, we might

get 420. It's not a fixed number. Them are floats week to week, depending on the actual cargo that rolls in the gate that we have.

On roll-on/roll-off, which I mentioned earlier about how many cells or how many boxes per hold we can get in, on the hard-copy final stow plan that I get from the roll-on/roll-off checkers, the stevedore checkers, they come up and they tell me what boxes are in the port (inaudible). Let's say it's a specific hold, say we got 3 Charlie. Okay. We got port in the center and a starboard section of that hold. I'll have a diagram of what containers, what six containers are in the starboard section. Normally, we got six containers in the starboard section, four containers in the center section, and four or five in the port section. That port section is actually, when you're on the ship, if you look, that's where the watertight doors are. We usually get one container or less in there because we can put the longer 53-foot trailers or containers, we can back those up in there. But since they're a little longer, you can't get as many on the port side as you can the starboard side, which really doesn't mean anything other than we get more on the port side and some on the starboard side. Weights aren't important for that part.

What I would do then is, let's say for the starboard section, the roll-on/roll-off stevedore longshoreman checker will write for each container that's in there or trailer, if it's a trailer, how many thousands of pounds those are. Again, that's the number that's released by the Spinnaker system. Say it's 50,000 pounds and they add the 8,000 pounds for the chassis and the roll-out box. So I'll add, let's say if we've got five boxes in there and say, you know, they're 40,000 pounds, 45,000 pounds, 58,000 pounds, whatever they have to be, I'll add all those pounds up and divide by long tons, 2,240, and that gives me how many long tons of cargo are in that section. So in the CargoMax program, I can say there's six trailers in here for a grand total weight of 210 long tons, and then it will print out. And I don't even know what that comes up to.

And then it has as little box that says your average trailer weight or container weight is 25 long tons or 27 long tons, so 6 times 25 is, you know, whatever the math is. Do the same process for the center section and the same process for the port section. So what that's doing is actually, rather than saying we just got 450 tons in that one particular hold, it's telling me how that's split out port,

center, in starboard, so it will give a little bit of idea and it goes into the list calculations that CargoMax generates. So I could have -- go ahead.

CHAIRMAN STOLZENBERG: Eric Stolzenberg, NTSB. So it doesn't break it down to the individual trailer. It's a group or a section of trailers --

MR. MATTHEWS: Correct. That's what CargoMax reflects.

CHAIRMAN STOLZENBERG: Thank you.

MR. MATTHEWS: And so I'll do that through the course of the ship. Some of the holds that have cars in there, they'll have containers in there. So if we've got six containers at 210 tons, we may have a little space they snuck, they didn't sneak a car but there's a space for a car to go in there. So I say there's one car at one and a half long tons. Another section may have three trailers, but it may have two or three Kenworth over-the-road tractors in there at about 17,000 pounds a piece. Well, I'll have those weights of this NICs that we talked about earlier. I'll add those up, 17,000 pounds plus 10,000 pounds plus 8,000 pounds, whatever it happens to be, and again divide by a long ton, 2,240. So I could say we have three NICs or in CargoMax it just says other, it has a trailer, auto, and other. So I'll put three others at a grand

total tonnage of 20.1 long tons. And then, again, it has the average down there of what each other weighs in there. So when you looking at CargoMax, you're not seeing trailer numbers or container numbers or whether it's a tractor or a boat, you look and you're seeing I've got six containers in there, their average weight is 30 tons for a total of 180 tons or whatever it happens to be, four NICs and six cars. That's what you see in CargoMax. Our hard-copy stow plan that I take that from is what generates that information. And, again, it's a tedious, lengthy process. But I'm very comfortable that it's giving us the information that we really need.

So I'll do that the entire ship. During the day, when I'm getting the RoRo plans, the lift-on/lift-off plans, I'm also getting the roll-on/roll-off plans. So these are being done simultaneously. As I'm getting updated information, I'm updating the trim and stability program and keeping my eye on what's this really doing to the ship. So that gives me available dead weight, what I'm looking at, how we're looking at it. If I got to adjust anything with ballasts, I just say, hey, we have too much cargo. There's only so much I can do because if I bring the ballast down too deep or too much, like we empty a tank and I don't have the

GM margin, that also reduces the GM margin. So I have to weigh those factors, okay, where's the balance to do that? Sure, I get available dead weight, but then I'm hurting the GM margin if I do that, so I got to keep the weight in there so it helps the GM margin, which reduces the amount of cargo we put on the ship.

It's just a balancing act so, at the end of the day, the trim and stability program, we have positive available dead weight, a GM margin of 0.5 or greater, and, if I'm keeping my eye on it right, I'm telling the stevedores, hey, your list is looking, you know, go into starboard and start loading heavy port up top. So at the end of the day, the list is just about level. There is no (inaudible). If it is, it's minimal with the ship's capability of the shifting water, in El Faro's case in the ramp (phonetic) tanks, they can take that list off with just moving a little bit of water in their ramp tanks to level out.

And so that's, in short, that's what I do.

CHAIRMAN STOLZENBERG: So at that point, you treat the two cargo separately, the box cargo, the container cargo, the roll-on/roll-off, you've got them summed, you've placed them in CargoMax according to the final, I think you said stowage plans that you had, and so you're happy. I don't know what time of the night

it is. Actually, one of the questions I wrote down is what time do you start that load day and what time it's generally completed?

MR. MATTHEWS: Say on a vessel where it's a 2000 departure, which is how we schedule for, I am probably in, if we close the gate on time -- there's a lot of ifs in this -- I'm generally done with the final trim and stability anywhere a half hour to an hour before the ship sails, scheduled sailing.

CHAIRMAN STOLZENBERG: So what time do you arrive in the morning, say to begin your --

MR. MATTHEWS: About nine.

CHAIRMAN STOLZENBERG: So about nine.

MR. MATTHEWS: So, again, we go back to the discharge. And I've started this the day before with the pre-stow plan and my fructose, so I do what I can the day before, based on the information I have. So I'll show up, say on Tuesday morning, when the El Faro would have worked, I'll be there about 9:00 in the morning.

CHAIRMAN STOLZENBERG: Okay. And so the place you just mentioned where I believe you'd be still in your office, you've got everything inputted into CargoMax. What time of the day is it about right now where you just left off in your narrative, typically?

MR. MATTHEWS: 7 - 7:30 in the evening.

CHAIRMAN STOLZENBERG: Okay. So now it's about 7 - 7:30. What happens next, once you have that into CargoMax?

MR. MATTHEWS: Okay. Once I have that information, and, again, I've been in contact with the chief mate and/or captain throughout the day telling them, hey -- and they're calling, too. They're saying, hey, what's it looking like and all that good stuff, and I'll say it's good, it's going to be a full load, you know, it looks like we'll probably be on our marks or we're going to have some tonnage, you know, we'll keep looking at that. At the end of the day when my input is done, I will look at that. And if something is not right, let's say we're scheduled at 2000 departure and say it's about 1900, I'll look at this. We've got everything in that everybody wants to go on the ship and I've done everything I can with ballasts and I've double-checked all my numbers and go through to make sure I've typed in everything right, you know, double-check, check, check to make sure everything is right. And if something is not right, like the GM margin is too, hasn't reached the 0.5, well, we'll say it's, when I pre-stow, it's generally below that because, as I've said, I stow heavy. And if it hasn't

got as good as I wanted to get or needed to get or if the available dead weight is in the negatives and there's nothing else I can do, then I'll call the cargo management department and say we've got to take cargo off, there's nothing else I can do, we've exceeded the limitations of the ship.

All the cargo may not be on the ship yet. Don't -- because I'm trying to be proactive. If we can figure out what not to put on the ship before it goes on, it won't ever make it to the ship. You know, that just saves us labor. But at the end of the day and it's been close on, you know, it looks like it's going to be close or it could go one way or the other and I get the final plans and the cargo management people, I'll tell them, you know, we've got to take off 100 tons of cargo, you know, you tell me what 100 tons it is, but we've got to get 100 tons off, or our GM margin is at 0.45, I need to get it up to 0.5, that may take two boxes, depending on if there's one box on the third tier will take a 0.05 off the GM margin. That's because of the wind surface area. That's the biggest jump. You know, if I've got a whole tier of three high, and then I've got one bay that's all three high and I've got another bay that's only one box three high and I need to get, you know, 300ths of a GM margin

back, if we take that one box off, that will jump it from a 0.47 to a 0.52, where I need to be.

But I'll again get with the cargo management folks and say here's the condition of the ship, I've got to get it to here, what do you want to take off? You know, and then they look into their system of who the shippers are, who the priorities are, so they can take the cargo off that causes them the least problems or least challenges. You know, if you've got some stuff going to the factory where it's, you know, just in China time logistics, they need that box. If you've got something that's, you know, that's a bunch of ping-pong balls for a fraternity beer pong tournament or something, you know, that might wait until next week.

UNIDENTIFIED SPEAKER: As long as the beer is there.

MR. MATTHEWS: Yes, yes, correct.

CHAIRMAN STOLZENBERG: And so if once you make those determinations you get to a final place, do you walk it up to the shop, do you email it, do you --

MR. MATTHEWS: I take it to the ship -- what I would do first is, if I do have a challenge with something, I'll call the captain and say, hey, captain, here's what we're looking at, here's what my plans are, or if there's a list, here's what my plan is if there's

a list. I'll talk with the captain over my plan to get to where we need to go.

Once it's all said and done and I think, you know, everything is good or looks good, I'll call the captain back and say, okay, we've got that challenge and here's what you're looking at. You've got a GM margin of 0.50, you've got available dead weight of 32 tons. Your (inaudible) looks like four and a half feet. Your wrist (phonetic) looks probably (inaudible), but you could probably take that off the water because in El Faro they didn't have to take on water. In their ramp tanks, they had water in there, they just shifted from side to side, so that didn't affect available dead weight.

So, okay, good. So I will take the final stow plan hard-copy paper, the CargoMax load case on flash drive. That load case is saved in three places. It's saved on the T drive, our operations T drive, which is where this Excel spreadsheet is also. It's saved on the hard drive of my computer, and it's saved on the flash drive that I hand over to the chief mate. So I take the final copy of the stow plan, I'll take the flash drive with the CargoMax load case on it, I will take the dangerous cargo manifest which is generated by other people, I'll take the reefer

manifest which is generated by other people. If we have any livestock shipments, if I haven't already taken that up to the vessel, I will put that in the pouch also. It's documentation for the livestock and the paperwork for the cowboy or the handler that actually accompanies the livestock, so the captain has that for his electronic notice of arrival information.

I'll take that, if any mail has come during the day or any other packages or anything that needs to go to the ship, any reefer container spare parts, you know, (inaudible) that I had earlier in the day but I got it at the end of the day, an evaporator fan motor or a (inaudible) or a couple of plugs or whatever, I'll take all that down to the vessel and I'll call the chief mate and say, chief mate, whatever, you know, their name is, I'll be there in two minutes, I'm on my way.

The chief mate would generally meet me on the dock. If he doesn't, he'll be down the gangway shortly. At that time, I will give him all the paperwork. Chief mates, generally, the first thing they do is they look at the CargoMax load case summary. They're looking for the drafts or looking for GM margin and I don't know what else they look at, to be honest. But they're looking at the stability numbers.

And I have a little truck, and these ships are 800 feet long essentially, so, rather than walking up and down, we'll drive up to the -- once the cargo is completed, sometimes I'll be down there, if everything is going along, we've made some changes to the plan, the cargo mate is still working while they're adjusting what I tell them to adjust to, we'll be down there on dock. Once that's all finished and the lashing rack has gone up on the ship and everything is done cargo-wise, I'll have a crane standing by. If it's close, I'll have a crane standing by (inaudible) if we've got to do something else. We'll get the fore drafts, we'll get the aft drafts, we'll get the mid-ship draft on the starboard side, generally have one of the mates look out on the (inaudible) there's an opening there on the port side where they can look down and see the mid-ship draft on the port side.

So we'll have all our drafts. They've generally already taken the salinity of the water at the gangway. They drop a bucket down and bring it up, put the hydrometer in there -- I think that's what you call it -- to get the salinity of the water. Being where we are, Blount Island, the salinity generally is in the range of 1.009 to 1.016, but it has been pure salt at times and it will get up to a 1.004 or 5,

depending on the tide and how much rain and stuff we have.

I have an immersion table in the glove department of the little truck I have. I also have one in my bag here, if you care to see it. So we'll take the actual salinity, we'll take the actual marks, figure the mean for the mid-ship drafts and look across to make sure we're good just for a -- we'll take the observed drafts and make sure we haven't exceeded the available dead weight.

If it looks like we're close -- lately, with the full ships we have, it's close where we can't be. It's always on the positive side. We won't leave unless it's on the positive side. But if we have to take cargo off, we'll take cargo off. There were a couple of occasions, I believe you've talked to Jamie Ferguson (phonetic) who was the chief mate on the El Faro at one time, where we had plenty of available GM margin, it was in the 0.7s, but Captain Eric Axelson (phonetic), we were real close on available dead weight, but I had 300 tons of water in the 1A (phonetic) center line. Let's take 150 tons out and see what that does.

We drove up to my office, got into CargoMax, in CargoMax took that 150 tons of water out, brought it

down to 150 tons. The GM margin was still in the 0.6s, but its available dead weight was very comfortable. It was 200 to 300 tons. It's not always a one-for-one exchange when you're taking, where the cargo is, you know -- I'm sure you all know more about that than I do.

But in the CargoMax program, our available dead weight went up from 50 tons up to 250 tons available dead weight in the program. Of course, physically, we were already right there in it, so we knew that was going to get better. And the GM margin was still very comfortable, and so we dumped that water out. They can take out, their pump would take out about 120 tons an hour, I believe, 150 tons an hour. Taking out 125 tons raises the draft one inch on those ships, so they --

CHAIRMAN STOLZENBERG: Let me interject quickly. When you said the dead weight, that it didn't meet the dead weight, are you using a figure from CargoMax when you take those actual physical drafts, or are you taking --

MR. MATTHEWS: No, we're taking the --

CHAIRMAN STOLZENBERG: For your dead weight --

MR. MATTHEWS: We're taking the immersion

table versus the observed (inaudible) drafts.

CHAIRMAN STOLZENBERG: Okay.

MR. MATTHEWS: No, we're not even looking at CargoMax at the time. We're just looking at (inaudible) and seeing where that is. And if it's right on it and everything is looking good, then we're good. If it's, you know -- and like I said, we had an immersion table, so if it's pretty fresh water -- salt water will add 30 feet and 2 3/8ths inches. Say, if we're reading --

CHAIRMAN STOLZENBERG: From the immersion tables?

MR. MATTHEWS: From the immersion tables. If we're looking at 30 feet and 4 inches on the ship that we figured out but we have our immersion table that says we can go to 30' 0.6" depending on whatever the salinity is, then we're good.

CHAIRMAN STOLZENBERG: Okay. And those immersion tables, do they come from another booklet or another document?

MR. MATTHEWS: They're part of the -- I have a copy here that I . . .

MR. STETTLER: Jeff Stettler --

MR. MATTHEWS: I think this is actually out of the trim and stability manual, but I wouldn't --

MR. STETTLER: Jeff Stettler from Coast Guard. Could you just clarify? So at this point, you're separate from CargoMax? You're doing this, you're really --

MR. MATTHEWS: Yes, we're on the dock.

MR. STETTLER: So you've already figured out what your dead weight margin is, your available dead weight --

MR. MATTHEWS: Right.

MR. STETTLER: -- is in CargoMax, so this is you trying maybe getting a little closer based on observed --

MR. MATTHEWS: This is -- okay. CargoMax is a great tool, you know, to give us an indication of how things are, and that's all it is is a tool. We take the actual observes, you know -- CargoMax says we have so much available dead weight, but we want to make sure that we haven't exceeded it, so we'll take the actual observed drafts and compare it to the immersion table, which I believe is out of the trim and stability book. That says, per the salinity, this is how deep in the water we can be. If we're deeper than that, we don't go anywhere. No matter what CargoMax says, if we're physically, if we know we've exceeded the immersion table, we won't go.

MR. STETTLER: Are there conditions where you might use or you have used the draft readings and you might end up with negative available dead weight in CargoMax as a result of that? In other words, if CargoMax says you've got, you know, 100 tons of dead weight available, but then you do the draft readings and you realize, well, I could add 200 tons, would you do that?

MR. MATTHEWS: You mean I could put 200 more tons of cargo on there?

MR. STETTLER: Right.

MR. MATTHEWS: No, for a couple of reasons. One is we're done with cargo ops and we want to get out of there, and two, if -- no. CargoMax is our tool, but I'm not, we're not going to go into knowingly -- I just won't do it. I won't put in weights in CargoMax that says you've got 100 tons more available, you're 100 tons negative dead weight. We won't do that. If we have, due to the rounding up and the rounding down, if, at the end of the day, we have 200 more tons available dead weight or 300 more tons available dead weight than we think -- and I'm just throwing those numbers out there -- well, that's fine. That means we're probably just in a safer condition. We're in a more stable condition. Safer condition isn't the right word

because we're safe anyway. But we're in a more stable condition than we thought we were, which is -- I'd rather err on the side, and it's not err, you know, but err on the side of caution --

MR. STETTLER: Okay, thank you. I just wanted to make sure I understood that.

CHAIRMAN STOLZENBERG: Okay. This is Eric Stolzenberg again. I'm going to, later, after the interview is completed, make a copy of the immersion table since we're not sure of the source of it and we can compare it later maybe to other documents just to make sure we know where it's coming from. Okay, thank you.

Okay. I think where we're at in the narrative, you've double-checked the drafts physically on the dock, done some of the things you've discussed as far as dead weight and CargoMax, moving any other cargo, and you're with the chief mate on the dock or driving back to the office. One other question I had was who takes the water specific gravity? You said they take it. Is that the crew? Is that --

MR. MATTHEWS: It's a mate.

CHAIRMAN STOLZENBERG: A mate. Thank you.

MR. MATTHEWS: Yes, it's not an unlicensed crew member. I've never seen anybody other than one of

the mates.

CHAIRMAN STOLZENBERG: Okay.

MR. MATTHEWS: And it could be any one of the mates, but it's a mate.

CHAIRMAN STOLZENBERG: Thank you. And so if you could continue on, please.

MR. MATTHEWS: So now we're on the dock. I have all the final paperwork with the chief mate. If there's any questions at all, we'll talk to the captain and say, captain, are you comfortable, are you good to go, is there something else you want us to do? If there's a little bit of list (phonetic) still on the ship, and by a little bit of list, I'm talking like half a degree or three-quarters of a degree or something like that. So are you comfortable sailing like that? Are you comfortable sailing? Can you take that off the water? Are you comfortable with that, or do you want me to move cargo or take something off?

Once we get the okay from the master, and, again, I've already talked to him several times throughout the day and I've talked to him generally before I've gone down to meet the chief mate, so he already knows what's going on. But if there's any question at all, we stay and we do what we've got to do until the captain is satisfied that he's got a trim and

stable ship.

At that time, the chief mate will go up the gangway or he may have gone up a little bit earlier while we're doing stuff. The gangway is raised up. The tugs and pilots have already been called. So the docking master and the pilot are already aboard the vessel. The tugs will come tie up, and then the ship will depart.

CHAIRMAN STOLZENBERG: Okay, thank you. Let me take one step back. Earlier, you said, I believe, that you had a list of things you take up onto the ship or at least stand on the dock when the chief mate arrives, including CargoMax on a flash drive. But then you said you guys, I believe you stated that you and the chief mate looked at the CargoMax?

MR. MATTHEWS: I print out a hard copy of the final load case with that, and he also has a complete load case on a flash drive. So I give him something to look at there, and then he goes up -- so after it departs and I'm done, the chief mate, from what they've all told me, they go up to their office after the lines are let go, they plug that flash drive into the computer, pull up the load case in their CargoMax program, and double-check everything I've done.

CHAIRMAN STOLZENBERG: And the hard copy you had, does that stay with you?

MR. MATTHEWS: That stays with them.

CHAIRMAN STOLZENBERG: Oh, and that --

MR. MATTHEWS: I print two copies. They get one, I get one. So I've got the program saved on the T drive that we have and also on the hard drive of my computer, and it was on the flash drive that I gave them. We save it three places in case the system fails and I've got another way to get back at that information. The computer has crashed on occasion, so I had to get another computer. But I have it on T drive, so I can pull it right up and start off from -- I haven't lost anything. And I have the flash drive, also.

The CargoMax system doesn't work through our company's Citrix (phonetic) system, so we have to work straight off of the laptop that I have or it has to work off of a computer. It won't work through our Citrix interface or whatever, that EI stuff, any electronic stuff. It has to work off of our computer. It won't work from the server at the company to transfer the information.

So the chief mate will take that flash drive up to his office, as well as all the other paperwork,

plug that in to his computer and he'll go over, because he has a hard copy of the stow plans, he'll go over the stow plans versus the CargoMax load case just double-checking what I've done to see if there's any significant discrepancies. To be honest, I've never been called with one really, but I know that they do double-check all that. There may be the occasional typo where something is supposed to be 11.2 tons and I don't have one of the ones, so it's 1.2, something like that but nothing like, you know, forgetting to put a whole bay in or something like that that would put them in a dangerous position, as it were, an unstable position. They'll double-check that as they're going down the river before they even get to the pilot station.

If there was something that was going to happen and they know they can do that, they turn around and come back, you know, if they come across something that is not right.

CHAIRMAN STOLZENBERG: Do they call you every time, no matter what, if there's a problem or not a problem, or do they only call you if there's errors or --

MR. MATTHEWS: They would only call me if there is a problem. I do get calls, I do get emails.

Sometimes, like I say, we take up the reefer log, which is a record of all the reefers, running reefers, the refrigerated containers that are on the vessel with a temperature they're supposed to be set at. Their electrician and chief engineer, at some point, double-check all of those, and if there's a discrepancy between what it's physically set at on the ship and what the reefer manifest says, they'll communicate that to me and then I'll go to the people I need to talk to to get an answer to reset that temperature if it needs to be or if the reefer manifest is wrong.

Sometimes, a customer will decide they want a reefer at a different temperature than what they initially said. During that process, it may go from 38 degrees to 36 degrees or vice versa, and we're just getting that straight.

If there was something amiss with the load case, the CargoMax, they would call me. But, no, they do not call saying everything looks good. They would call me -- no news is good news.

CHAIRMAN STOLZENBERG: Okay, understood. I only ask one final question before I pass it off to my colleagues. And if you would like a break at some point, please let us know.

MR. MATTHEWS: Okay, sure.

CHAIRMAN STOLZENBERG: I know we were supposed to go for about another 40 minutes or 30 minutes or so and maybe longer if we can. Earlier, you said you had a GM margin you were trying to maintain. What is the source or the reference for that minimum GM?

MR. MATTHEWS: That would be the trim and stability book, and that's in the CargoMax program. And that's all I really know about that development is it's computed with the Herbert Engineering that developed the CargoMax program. That's programmed into, that's into that program. It automatically computes as I'm adding information.

CHAIRMAN STOLZENBERG: So the value you're using, and correct me if I'm wrong, is the value that's given in the CargoMax software?

MR. MATTHEWS: Yes.

CHAIRMAN STOLZENBERG: Okay. And do you also use the value from the, you said the trim and stability booklet?

MR. MATTHEWS: I believe that's computed from that by the engineers when they programmed it.

CHAIRMAN STOLZENBERG: All right.

MR. MATTHEWS: I do not look at a trim and stability book. I have a copy of it. I glance through

it on occasion. But based on my background, we did go back in my college days. I was a phys ed major in college.

CHAIRMAN STOLZENBERG: All right.

MR. MATTHEWS: I'm not a math major. I'm not a marine architect. I'm not a maritime grad or anything, so there are things I have to trust that are right. So that information is computed. Both the GM and the GM margin are computed in CargoMax. The GM I really don't look at because I'm going with the GM margin. If something happened that said, if I had to go with the GM, I know what block to look in. And if they say it has to be above this number of, you know, 1.2 or greater, then that's the block that I would be looking in to be --

CHAIRMAN STOLZENBERG: Whatever you actually do, I appreciate hearing what numbers you get it from. Thank you. If we're not taking a break, I'll hand it over to Mr. Stettler and we --

UNIDENTIFIED SPEAKER: Do you want to take a five-minute break?

UNIDENTIFIED SPEAKER: I'd actually like a short break.

CHAIRMAN STOLZENBERG: Okay. We're going to go off the record. We'll come back in five.

(Whereupon, the above-referenced matter went off the record and then went back on the record.)

CHAIRMAN STOLZENBERG: Okay. We're back on the record with Donald Matthews, part two. And I'm turning it over to Jeff Stettler from the Coast Guard.

MR. STETTLER: Thank you. Don, thanks again for such a thorough summary.

MR. MATTHEWS: Oh, thank you.

MR. STETTLER: That was one of our main goals was to try to, you know, from beginning to end, what goes into the process. So that was very good, and thank you for providing all the details.

MR. MATTHEWS: Sure.

MR. STETTLER: I think we had talked about this before kind of with things that we were observing, and there was a couple of areas. So I think what we'll do is I'll ask a couple of questions and then we'll kind of go around, and, you know, CargoMax is one, for example, and some other areas that we'll ask different questions on.

So I got one that I don't think it will require anybody else, so I'll start with this one. But I was on the Coast Guard salvage team, and so, when the El Faro was missing, we received some initial CargoMax

printouts Bill Winebecker (phonetic), and there were two. And I don't know if you've seen this, and maybe this is a question for Rodriguez on Friday, but there was one dated the 28th and then there was another one dated the 1st, which had a couple hundred tons difference in fuel. And I just wondered if you knew or were aware of was there a change or an error in the original --

MR. MATTHEWS: That would be more for Ron Rodriguez to answer, but I believe there was something that, I think there was a correction he made.

MR. STETTLER: Okay. Yes, it almost looked like a typo of, you know --

MR. MATTHEWS: Yes.

MR. STETTLER: -- tons in two different tanks, so I just wanted to know if you were aware of it.

MR. MATTHEWS: To be honest, since I wasn't there that week, I did not do anything with it. If, in the past, there had been something wrong, and I'm sure that there --

MR. STETTLER: I just want to make sure, as we go through our analysis, we're all referring to the same departure condition.

MR. MATTHEWS: Right.

MR. STETTLER: So if we're looking at the load case files in CargoMax and other things, I just wanted to make sure I was aware if there were any subtle changes in that. So thank you for that.

So I guess I'd also like to ask a little bit more detail about the draft readings. I think you gave a good summary of, you know, basically, that the crew, we've heard through other interviews the discussion about the mates taking draft readings, although it's not always clear and consistent. And your name comes up, which we've talked to you about that before in the sense of, you know, Don is the most consistent person in all of this. So I just wanted to clarify. So correct me if I'm wrong, you walk around with the chief mates and --

MR. MATTHEWS: We actually drive, but I do --

MR. STETTLER: Try to do the draft readings --

MR. MATTHEWS: Now, if for some reason, like I said, we were planning stuff and he's already taken the drafts and I'm getting the dangerous cargo manifest, for whatever reason, he gives me the drafts, I always double-check that.

MR. STETTLER: Okay. So you look at the

drafts, and you mentioned fore and aft.

MR. MATTHEWS: Yes.

MR. STETTLER: And I assume the aft you're talking about on the side drafts on the --

MR. MATTHEWS: On the --

MR. STETTLER: -- pier side, not the center line drafts on the (inaudible); is that correct??

MR. MATTHEWS: Well, on the El Faro, it is the pier-side side draft. Normally, it would be the stern draft, but during the last shipyard period they stopped at 30 feet, and, generally, we're about 32 in the water. So we had to go to the side draft.

MR. STETTLER: Thirty feet, two inches?

MR. MATTHEWS: I mean, the stencil (phonetic) on the ship is actually 30 feet.

MR. STETTLER: Okay, okay.

MR. MATTHEWS: So after that, we went to the side --

MR. STETTLER: Okay. So I have seen some logs that had, from August, the month of August, written down on the CargoMax printouts observed drafts in the deck logs. They were combined with the deck logs, and I just wanted to make sure that doesn't say, it says fore draft, aft draft. Not all the time but many times they'll also list the mid-ship draft. I've

never seen a port starboard. So do you know if those were recorded anywhere on --

MR. MATTHEWS: The port starboard mid-ship drafts?

MR. STETTLER: Correct, yes.

MR. MATTHEWS: I do not keep them permanently. Sometimes, I'll write them down. To be honest, I thought they were writing them on the deck log.

MR. STETTLER: I haven't seen them in the deck log, and, again, I've only looked at the month of August.

MR. MATTHEWS: Again, to answer your question, they are written down. When we take them, we figure them out on the dock. And this is not for the El Faro but for last night. This is an example, you know. I'll do the cargo (inaudible), the drafts, and to do the, take the mid-ships and figure it out and make sure everything is good to go.

MR. STETTLER: Okay.

CHAIRMAN STOLZENBERG: This is Eric Stolzenberg. For the record, we are handed a 3 by 5 inch hand notebook from Mr. Matthews (inaudible) drafts.

MR. STETTLER: Very good. Thank you, Don.

And you mentioned also, which was the first we've heard about, reading the seaward side drafts by leaning over the side. You were, I think, the first one that I've heard that discussed actually from the second deck, but that clarifies some of it. So you're saying you can clearly see those drafts from the ship?

MR. MATTHEWS: They can. I've never actually tried to look over to see it.

MR. STETTLER: Okay.

MR. MATTHEWS: There's a -- we take those at the same time, so the chief mate will have one of his mates, whoever is available, generally the second mate, go to the port side mid-ship drafts and will read those mid-ship drafts at the same time. So --

MR. STETTLER: Okay. And you write them down or the mate writes them down --

MR. MATTHEWS: Yes.

MR. STETTLER: -- at the same time?

MR. MATTHEWS: Yes.

MR. STETTLER: Okay. So you had fore and after and port and starboard mid-ship drafts at the same time. And you also mentioned it's related, the water density measurement, which you said you believe it's done with a hydrometer?

MR. MATTHEWS: Yes. Oh, it is done, yes.

MR. STETTLER: By the ship's crew. So that's not something you do.

MR. MATTHEWS: No, by a mate and, typically, right about the time (inaudible) cargo operations. So it's not taken in the morning and then we wait until the end of the day when things may have changed when the tide changes. It's done fairly close to when we're actually going to look at the observed drafts.

MR. STETTLER: During the drafts. Okay. And have you ever done that with them or --

MR. MATTHEWS: Yes.

MR. STETTLER: Okay. But not always?

MR. MATTHEWS: No.

MR. STETTLER: Okay. So, again, I ask the question because I don't see them typically on the logs. I have seen a CargoMax. It appears to be using the salt water density --

MR. MATTHEWS: That's correct.

MR. STETTLER: -- always.

MR. MATTHEWS: Correct.

MR. STETTLER: Could you just tell me why that is?

MR. MATTHEWS: Because that's where, basically that's the condition the ship is going to be on the way to Puerto Rico. Rather than figuring if

we're in the river for 12 miles out, then figure for the salt water for the next 1100 miles.

MR. STETTLER: Okay, very good. So the salinity density varies significantly at --

MR. MATTHEWS: Yes.

MR. STETTLER: I know that just tidal changes alone, high tide to low tide, it can vary significantly, almost not by halfway between salt and fresh water, and then depending on the time of the year, the month and all that.

MR. MATTHEWS: Correct.

MR. STETTLER: So you try to get those as close as possible to the draft readings. I assume, based on what you've said, you haven't said anything about tides and predicting the tide height or anything like that --

MR. MATTHEWS: No.

MR. STETTLER: -- so I assume that you don't incorporate that in any way.

MR. MATTHEWS: No. Not for the CargoMax load case, no.

MR. STETTLER: Okay. So you're simply reading the density with the hydrometer and reporting the facts. Okay. So I guess we have to work on figuring out how we can maybe find some logs on that or

something, and I haven't really seen those. That's just a comment for the group. Thank you, Don.

I think, with that, I'll pass on and see if anybody else has any related questions.

UNIDENTIFIED SPEAKER: I have no questions at this time.

UNIDENTIFIED SPEAKER: No, nothing.

MR. [redacted] Okay. [redacted] from the Coast Guard. I'd like to just follow suit with the questions the measurements that were being taken. One of the question is, with regard to loading (inaudible), when you're doing that, you're doing it both through observed readings and through the CargoMax. I'm curious, when you do that, is the displacement readout in CargoMax a factor that you would look at in comparison to (inaudible) or is it more of the draft reading?

MR. MATTHEWS: By displacement, you mean available dead weight tonnage left or --

MR. [redacted] Just overall displacement of the vessel.

MR. MATTHEWS: To be honest, I don't look at that.

MR. [redacted] Okay. Then another question is, as far as the list or heeling of a vessel

that you see, is there a typical amount that you're having to load the vessel to starboard or to port in order to get it on center?

MR. MATTHEWS: The ship, no. We just keep an eye on it. And not only do we look in CargoMax, we just look out the window and I would tell the longshoremen, hey, you need to get some weight on the port side, even during the operations because we don't want to get too much of a list on it while we're in operations. One, of course we've been told not to; but the second is it degrades cargo operations. If you get too much of a list on it, then it affects how you can land the boxes on the ship. So we need to keep it fairly level during the day just to actually conduct operations.

MR. [redacted] Right. This is Lieutenant [redacted] from the Coast Guard again. Just following up on that same question, I should clarify. One of the reasons I'm asking that question is some of the past CargoMax output reports that we've seen seem to show that the loading was put off the starboard up to --

MR. MATTHEWS: Okay. That's a good indicator. CargoMax is not the best tool to figure what the actual list will be. I perhaps misunderstood your question earlier. The number I shoot for for the

El Faro to be level keel in CargoMax is 2 ½ degrees starboard. That's the CargoMax indicator. Now, from that point, say we show a 2 ½ degrees starboard, that's probably pretty close to level. Once I have that number, if I start moving a box around, say it says 1.5 and we got a one degree port list, if I take a 30-ton 20-foot tank from bay 7 to the port side to the starboard side, that moves it almost a degree. CargoMax will also show that almost a degree, like 0.8 degrees. And with the oculometer on the bridge, it also shows the same thing. It's a great tool for figuring out what you change, what change in the ship will be, but it's not a great indicator of what the actual list is. It tells you what list changes you make, figuring, in the case of the El Faro, 2 ½ degrees starboard.

MR. [redacted] And I'm going to avoid getting too much into CargoMax because we'll hit that on another round. So also as far as the readings of the drafts, have you noticed, while taking the drafts along the side of the vessel from fore to aft, including the mid-body, has there been typically a hog or a sag on the vessel?

MR. MATTHEWS: There's always a hog.

MR. [redacted] Always a hog, okay. And is

that something that you consider when you're loading the vessel that it's in a hog condition, or it is just generally, you know --

MR. MATTHEWS: It's always a hog. I mean, I can't get that ship to sag if I wanted to, I don't think. So, no, I don't consider how much hog it's going to have.

MR. [redacted] Okay. And does the vessel have trim limitations, or do you have any trim parameters that you use?

MR. MATTHEWS: As far as fore and aft, not that I've been told.

MR. [redacted] All right. That's it from myself for this round.

MR. GRUBER: Tom Gruber. You mentioned taking outboard mid-ship marks by the mate looking over the side. Does he also take the fore and aft marks?

MR. MATTHEWS: No.

MR. GRUBER: No. So just -- okay. That was the only question I had.

MR. MATTHEWS: Okay.

MR. O'MEARA: This is Dennis O'Meara with TOTE Services. I don't have any questions.

MR. [redacted] with the Coast Guard. How close are the typical calculated drafts

from CargoMax to the observed drafts when you take those?

MR. MATTHEWS: I don't keep a record of that, to be honest. Based on the changes of the salinity, of course we're going to be off somewhat from a (inaudible) in a pure soft condition. So years ago, I tried to, I'm talking like seven or eight years ago when I first started doing this, (inaudible) with the El Faro, I tried to keep that in Excel, and it really wasn't telling me a whole lot with the other ships. And I never tried to do that with the El Faro.

MR. [redacted] Okay. So salinity could be one reason. Could that, you mentioned just a minute ago that you needed to show a 2 ½ degree list with starboard to actually be on even keel. Could that --

MR. MATTHEWS: In CargoMax.

MR. [redacted] -- contribute to --

MR. MATTHEWS: I could not answer that question. They're close but probably not dead-on. But they're close.

MR. [redacted] Okay. I think earlier you said, as far as the RoRo cargo down below, that you don't input each load specifically in CargoMax; is that right? You take an average --

MR. MATTHEWS: Correct.

MR. [redacted] -- for each bay. How is the center of gravity calculated for --

MR. MATTHEWS: I take an average for each section in each hold, port, center, starboard. Where the center of gravity is actually computed in CargoMax, again, I could not answer that. That would be programmed from Herbert Engineering.

MR. [redacted] So it doesn't change from load to load? The center of gravity is --

MR. MATTHEWS: That's a constant wherever that is in the computer.

MR. [redacted] Okay. I think that's all I have for now until we come back around.

UNIDENTIFIED SPEAKER: I don't get to ask questions.

CHAIRMAN STOLZENBERG: Okay. Eric Stolzenberg again, NTSB. Excuse me. Let me follow-up with Tom Gruber here, and then we'll go to Mike.

MR. GRUBER: Tom Gruber. Just to follow-up on what [redacted] said, so for non-standard items or NICs, as you called them before, the centers aren't calculated for that input separately? That's all considered part of the input into CargoMax, and CargoMax --

MR. MATTHEWS: Correct.

MR. GRUBER: -- assumed center of gravity for that spot?

MR. MATTHEWS: Yes. As far as on the -- yes.

MR. STETTLER: Jeff Stettler. Could I follow-up on that? I thought you had said earlier, Don, something about the doors on some of the trailered items that go down in the lower decks --

MR. MATTHEWS: Oh, oh --

MR. STETTLER: -- there's an asymmetry associated with that. Could you restate that or --

MR. MATTHEWS: Well, it's like on the port side, as you're going down on the third deck, you have the watertight doors there. And the longer trailers could go in through those doors but not on the other side. And that's typically because you can't jackknife them into the starboard side, but you can back them straight down the door to the bulkhead or the other watertight door that's right behind it and just back it in straight. The 53-foot containers, even when these ships were built in the mid 70s, I believe 40-foot containers was the standard. You know, 53s weren't even a consideration. So these ships were built with that in mind to jockey the containers in place. The 53s we can't get on the starboard side of the ship down

below, so we put them on the port side, but that's just because it's strictly, when they come down the ramp and they get them angled up, they can back them straight into position and then close the doors.

MR. STETTLER: Does that create any potential weight asymmetry in those cargo holds as a result of that?

MR. MATTHEWS: Oh, yes. But that's one thing, like I said, we keep an eye on during the day of what's going on. So if we're heavy port down below, then that means we have to go to heavy starboard up top to keep it level.

MR. STETTLER: And the CargoMax entry for those decks, do you adjust those weights or the centers of gravity of those weights?

MR. MATTHEWS: No, the centers of gravity are computed whatever is in the system. But in 3 Charlie, in example, I may have seven trailers on the port side or six trailers on the port side averaging 27 tons a piece, 25 tons a piece. In the center, I have four trailers about 25 tons a piece. On the starboard side, I believe I'm looking at the ship right, maybe four trailers at maybe 20 tons a piece. So in that specific hold, it will be heavy to one side. Over the course of the ship, though, we'll even that up so that

the ship is level upon departure.

MR. STETTLER: Okay. So if I look at, for one of those bases on a particular voyage, if I looked at the CargoMax for that and the load plan in the CargoMax, would I see that as it being --

MR. MATTHEWS: Yes.

MR. STETTLER: -- asymmetrically loaded on that deck?

MR. MATTHEWS: Yes.

MR. STETTLER: I would. Okay, thank you.

CHAIRMAN STOLZENBERG: Okay. We'll go to Mike Kucharski on the phone regarding the narrative and the draft readings.

MR. KUCHARSKI: Hello. Can you hear me?

CHAIRMAN STOLZENBERG: We can hear you, Mike.

MR. KUCHARSKI: Okay, great. Hello, Mr. Matthews.

MR. MATTHEWS: Hello.

MR. KUCHARSKI: A few questions first regarding cargo load stability, and then I'd like to ask you some questions on weather. Have the overall vessel load-outs changed over the past few years? In other words, were the El Faro or the El Yunque loaded closer to marks than they were earlier on?

MR. MATTHEWS: Yes.

MR. KUCHARSKI: Okay.

MR. MATTHEWS: They were --

MR. KUCHARSKI: And --

MR. MATTHEWS: Go ahead.

MR. KUCHARSKI: No, no, go ahead.

MR. MATTHEWS: Go ahead, Mike.

MR. KUCHARSKI: Okay. So they were closer to marks than they were in past use; is that correct?

MR. MATTHEWS: For the last two years, yes.

MR. KUCHARSKI: Okay, okay. Can you tell me how often the cargo scales were certified and who actually does that?

MR. MATTHEWS: No, I cannot. That I don't know. That would be a terminal manager question.

MR. KUCHARSKI: Okay. So is there just one set of scales at the gate?

MR. MATTHEWS: We have three. We have three scales. We have three lanes coming in, so there's three scales.

MR. KUCHARSKI: Okay, okay. Thank you. Did you provide the ship with a pre-stow plan before the actual loading?

MR. MATTHEWS: Generally, no. With the -- again, to the question of are the ships generally full

now or heavier now, I generally tell them it's going to be a full load, we'll be right at our marks. And that's pretty much the standard for the last year and a half, two years.

MR. KUCHARSKI: Okay, thank you. You mentioned, you talked about lashings and lashing margins. Before we get to that, do you know if the buttons in the d-rings were tested on the El Faro or when they were last tested?

MR. MATTHEWS: No, I do not. I know we do have, if we ever wanted to replace any, we have them on hand.

MR. KUCHARSKI: Okay. You also mentioned that you have the CargoMax program loaded on the shoreside computer; is that correct?

MR. MATTHEWS: Correct.

MR. KUCHARSKI: Do you know who loaded that up?

MR. MATTHEWS: One of our IT guys several years ago when the latest update came out because, to be honest, I don't trust myself to do that.

MR. KUCHARSKI: Okay. And was that checked against load cases that you're aware of?

MR. MATTHEWS: The actual program was checked against load cases in the test load cases, I

would assume that would be done by Herbert Engineering when they developed it, but, other than that, I'm not quite sure what you're asking.

MR. KUCHARSKI: Okay. Like ABS, American Bureau of Shipping, or any other --

MR. MATTHEWS: Oh, it's ABS approved.

MR. KUCHARSKI: It is ABS approved?

MR. MATTHEWS: As far as I know, it is.

MR. KUCHARSKI: Okay. Can you tell us what the ship and/or shore did relating to watertight doors, cargo fans and dampers when the ship left port?

MR. MATTHEWS: Can you repeat that, please?

MR. KUCHARSKI: Yes. Do you know what the ship or shore, longshoremen, or any shore personnel or ship personnel did as far as, you know, closure of doors, cargo fans, dampers?

MR. MATTHEWS: Are you talking about this particular voyage or just in general?

MR. KUCHARSKI: Well, you weren't there for that voyage.

MR. MATTHEWS: Right. In general, I hear them on the radio, it's always done by a mate or a crew member. The longshoremen do not open or close the doors or turn on or off the fans.

MR. KUCHARSKI: Okay, great, great.

Earlier, you stated that the lashing margins, you mentioned they were computed by the trim and stability book. Were the lashing margins also included in the CargoMax program at shore?

MR. MATTHEWS: That's where I get it from. Per the trim and stability book, when the software was developed by Herbert Engineering, those would have had to come out of the trim and stability book. So that's, when I'm looking at the lashing margins being exceeded is what CargoMax indicates.

MR. KUCHARSKI: And is it an actual readout section that tells you about lashing margins in the --

MR. MATTHEWS: Yes, yes, there is, for each cell above deck, for the LoLo decks only.

MR. KUCHARSKI: Okay, thank you, thank you. Shifting gears a little bit now to weather related, are you familiar with the BBS Applied Weapon Technology's program that the El Faro had?

MR. MATTHEWS: Yes, basically familiar. I'm not deeply familiar with it, but I have seen it.

MR. KUCHARSKI: Okay. Were you involved at all with the load-up of that program on the ship or the contracting to get that service?

MR. MATTHEWS: I am the one that actually, when BBS -- I forget the -- Bill Howshour (phonetic) or

whatever, the sale guys, came through here. He showed us what it was, and I recommended it to captains. This goes back several years. I was involved somehow in the process of recommending that people review it and, if they decided they like it, to get it for the vessels. For signing the actual contracts, I was not, but I was, again, going back several years, I was somehow involved in the process of seeing it and bringing it on board.

MR. KUCHARSKI: Okay. Do you know who actually approved the contract?

MR. MATTHEWS: That is so long ago, to be honest, no, I do not.

MR. KUCHARSKI: Okay. Did you have -- so you didn't have access to the BBS system on shoreside?

MR. MATTHEWS: No, we don't have that shoreside. The actual BBS, this goes to the ships.

MR. KUCHARSKI: Okay, great. Do you remember having any conversations with Captain Axelson or any of the other masters about weather routing?

MR. MATTHEWS: I have had conversations with the captains, and they actually, they liked the program that they have. On occasion, they'll tell me they're going down the Old Bahama Channel or maybe through the Providence Channel after they have reviewed the weather programs that they have. BBS is only one that I know

of that they use. I believe there's a couple of others out there. I think NOAA has one and underground weather, something like that. They have several sources, BBS being probably the most graphic that you can understand, from what I have seen. But as far as weather routing goes, they chose their own routes. They decided that.

MR. KUCHARSKI: Okay. So you didn't have any specific conversations as far as adding weather routing to the BBS suite?

MR. MATTHEWS: Oh, no, no, to the BBS suite, their weather-routing option? No, no, not at all.

MR. KUCHARSKI: Okay, okay. Great, great. And did you have any discussions with the masters typically about weather expected on the voyage?

MR. MATTHEWS: Generally, whether it was going to be rough, whether it was not. We ship livestock on occasion, so if we've got any livestock, if we're planning to ship livestock, I'll reach out to them to let us know if it looks too rough or not to take them, as they are rather sensitive to the rough seas. If something looked like a nor'easter or whatever it happened to be, it looked like they wanted to take the Old Bahama Channel staying closer to the coast, adding time to the trip for a little smoother

trip, they would let me know that they were going to do it and I would pass that on to my chain of command so that they could notify the customers, hey, the ship is going to be six hours late just for scheduling the cargo pickup.

So just as general information, I would talk to them about it, but not in a sense of instructing them or suggesting anything to them on what they needed to do.

MR. KUCHARSKI: Okay, great, great. Along with weather and cargo, did you have a hurricane profile or heavy weather profile for these ships?

MR. MATTHEWS: As far as?

MR. KUCHARSKI: Lashing profile.

MR. MATTHEWS: There is a heavy weather lashing profile. If they expect to be in heavy weather, they just tell us we want a heavy weather lashing and we tell our stevedore folks and they proceed to do that. If they don't do that, then the mates would let us know and we'd get the guys back up there or, if they're still on there, get them on there and have them do what they were supposed to do.

MR. KUCHARSKI: Okay. So the heavy weather or hurricane profile is not seasonal, it's just on request?

MR. MATTHEWS: For the full heavy weather lashing, that's on request. What we do, in general, on the second deck and on the RoRo decks is the very forward holds, 2A and 3A, are always the heavy weather lash and then the two outboard cells going along both port and starboard sides are heavy-weather lashed. So . . .

MR. KUCHARSKI: Does that request come to you and then you send it on to Portus, the stevedores?

MR. MATTHEWS: To do any other heavy-weather lashing in addition to what we normally do, that does come as a request. And if we think there's going to be rough weather, on occasion I have asked them, I have broached the subject for both Jacksonville and San Juan what do you want, just let us know, and we'll comply with the request.

MR. KUCHARSKI: Okay. So the request will come through you first and then on to Portus next?

MR. MATTHEWS: It doesn't come from me first. It would be made through me or I'd say Ronald Rodriguez, the terminal management, to Portus. It generally, it does not go straight from the ship to the longshoremen.

MR. KUCHARSKI: Right, okay. And do you also have a meeting prior to each load-out?

MR. MATTHEWS: With who?

MR. KUCHARSKI: The ship.

MR. MATTHEWS: What I send them generally, sometimes I forget, but I don't have a meeting with them prior to load-out, but the day before they arrive I will send a short email saying this is your, you know, you're on time for arrival for 0245 at the (inaudible) cargo operations to start at 0500, what time the ramp is projected, I'll tell them how many cranes are starting, you know, three cranes starting, the ramp is going on at 0800, estimated time of departure is 2000, how many fructose tanks are expected to be loaded, how many reefers we expect to load, if there's any, confirm whether there's any livestock loads or not, which I've already reached out to them before because I generally have several days' notice on those. I recommend ballast based on, you know, if we have a full load and how many fructose tanks we have, figuring that balance between the two. I'll recommend a ballast for the working ballast tanks and do that the day before. So they can actually start doing that. If they do arrive, you know, at the dock at five in the morning, they can start pumping the water out, so their guys can be done with that and they can take a break as they need to.

So we don't have a formal meeting, but I do give them information about what's going to happen. And during the course of their coming up, if they have any special requests they will let us know.

MR. KUCHARSKI: Okay, great. And the last question on that line, was there any conference call, say a day out before the ship got into Jacksonville, you know, between the ship and --

MR. MATTHEWS: No. Generally, there never is.

MR. KUCHARSKI: Okay, great. Now, just a couple of quick questions on organization. Looking through the organizational chart for SeaStar Lines, you were listed as a marine operations manager.

MR. MATTHEWS: Correct.

MR. KUCHARSKI: Earlier in the conversation, you were port captain marine operations manager for SeaStar.

MR. MATTHEWS: That was a port captain and then marine operations manager. There's a differentiation in title there, not so much differentiation in duties. But I --

MR. KUCHARSKI: Okay. So --

MR. MATTHEWS: When I first came into the Marine Operations Department, I was a marine operations

specialist. I was then promoted with a title to port captain, and subsequent to that I was promoted to marine operations manager. So I did not have the titles at the same time.

MR. KUCHARSKI: Okay. What did you do as a port captain?

MR. MATTHEWS: Actually, the same thing I'm doing now. It was, they changed my title to give me a pay raise.

MR. KUCHARSKI: Okay, okay. And just so I'm clear on that, did you have any responsibilities to interface with the vessels once they left port?

MR. MATTHEWS: In this particular instance, on their last voyage, no. Generally, if they need anything while they're at sea, they will send me emails telling me what they need. They may call me on the satellite phone. If there's something I need to communicate to them that somebody wants me to tell them, I will call them by satellite phone. So in a general rule, if anything needed to be communicated back and forth, even when I am on vacation, I do get involved.

In this particular, on the last sailing, I was not. I did receive the email that Captain Davidson did send out Wednesday morning. I did not see that

until Wednesday night. But I had no communications with them.

MR. KUCHARSKI: Okay. I guess I'm just trying to be clear on a typical port captain's role or a marine operations manager. Would it be fair to say it was mostly related to cargo and terminal (inaudible)?

MR. MATTHEWS: Yes. And it's 24/7, so they know they can call me anytime they want to.

MR. KUCHARSKI: Okay, okay. So it wasn't typically, like, I mean, (inaudible) navigation type issues, but it was more related to the cargo and terminal operations?

MR. MATTHEWS: Correct. And any support that they may have needed once they were at the terminal operations or maybe some specific vendor support they needed lined up to coordinate the vendors doing what they needed to do in conjunction with the cargo operations, so it was efficiently accomplished rather than at odds with each other.

MR. KUCHARSKI: Okay. And like vendors we're talking about, maybe repairmen or possibly stores and (inaudible) type items?

MR. MATTHEWS: Correct.

MR. KUCHARSKI: Okay, okay. I just want to

be clear on that because there are other vendors involved possibly, so I just wanted to understand that. Okay. I think that's it. Thank you very much.

MR. MATTHEWS: Thank you.

CHAIRMAN STOLZENBERG: Okay. We'll continue around, I believe, on CargoMax questions with more details on CargoMax, questions with Jeff Stettler. And also just let us know, we have about 15 more minutes, so if there's something that you think you're repeating, please don't.

MR. MATTHEWS: Okay.

MR. STETTLER: Thank you, Don. Just a couple of clarifications. You had said that early on, I guess, when the vessel first gets in, you get fuel and water stores weights from the vessel, from the engineer on the vessel?

MR. MATTHEWS: I get the fuel figures from the engineer generally after they've finished bunkering. I will get projected estimates from the chief engineer. As far as the stores and things like that, that's a constant in CargoMax. Those numbers don't change. If they do have any change in the fresh water ballast tanks that they have, I would incorporate those into CargoMax. That's very, very rare that that happens. That's more the fresh water that they have

for the boilers, and those tanks stay fuel. If for some reason they've taken one down for whatever, they inform me and then I'll make that change in CargoMax. But that's a very rare occasion.

MR. STETTLER: Lube oil?

MR. MATTHEWS: Lube oil, that's a constant. The only numbers that change in relation to the oils and the bunkers is the actual bunker fuel. The other numbers are --

MR. PETERSON: This is Lee Peterson. These are steam ships, so we don't have the cylinder oils and the consumption of --

MR. STETTLER: Right. I know there were several lube oil tanks.

MR. PETERSON: But on these ships, it's very couple years you might take on lube oil.

MR. STETTLER: Okay.

MR. MATTHEWS: And even then, it's --

MR. STETTLER: I know you said you did earlier in the process, and they were estimates. I didn't hear you say that later you go back and fine-tune those. I just wanted to make sure I understood what those values were.

MR. MATTHEWS: Right. As I get better numbers, I do update them.

MR. STETTLER: Because they are (inaudible) times in CargoMax.

MR. MATTHEWS: Yes.

MR. STETTLER: I just wanted to --

MR. MATTHEWS: Yes, yes. I put in the most valid information that I can get, and I --

MR. STETTLER: Okay, thank you. Do you know -- you had mentioned several times 120,000-pound stack weight requirements. Do you know where that comes from?

MR. MATTHEWS: That's in the trim and stability book and cargo security manual. That's --

MR. STETTLER: So that goes with lashing margins which are --

MR. MATTHEWS: Right. I have the --

MR. STETTLER: I don't know that I saw those in the trim and stability book, but I'll go back and look.

MR. MATTHEWS: It may be in the cargo security manual.

MR. STETTLER: You mentioned they were in CargoMax, though? They were highlighted in CargoMax?

MR. MATTHEWS: Yes, they are figured in there. So if those are exceeded, it tells us.

MR. STETTLER: Okay. I'll go back and look.

I just wanted to know if you were aware, if there was a requirement you were aware of that drove that. When you're loading containers, so the stevedores give you the weights of the containers in the bays, do you make any adjustments to the VCG, the vertical center gravity, locations?

MR. MATTHEWS: No.

MR. STETTLER: The TCG? How about the RoRo cargo that goes in? What --

MR. MATTHEWS: It's whatever is figured into the program itself. I make no changes whatsoever to centers of gravity of anything. It's whatever is in the default or wherever it's set in the computer.

MR. STETTLER: Okay.

MR. MATTHEWS: In the program. To be honest, I don't even know if I can change it.

MR. STETTLER: Okay, okay. Thank you.

MS. FINSTERBUSCH: Patty Finsterbusch, no questions.

MR. [redacted] Okay. [redacted] from the Coast Guard. With the CargoMax software, you would be able to observe bending moments; is that correct?

MR. MATTHEWS: Yes.

MR. [redacted] Okay. Have you ever noticed any load conditions that approach your bending

moment lines?

MR. MATTHEWS: No, no, it's --

MR. [redacted] Okay. On those stillwater bending moments, were you aware of any reduction in the sagging stillwater bending moment required for the main and second deck (inaudible)?

MR. MATTHEWS: Okay. You just completely lost me there. I'm thinking no.

MR. [redacted] Well, (inaudible). There was an ABS note that there was an unimplemented reduced sagging moment for this vessel. I was curious if you were aware of it.

MR. MATTHEWS: No, I'm not.

MR. [redacted] Okay. For the fructose tanks, you mentioned that they were installed with, the tanks were installed with fixing piping and pumps. How were those weights, the weights of the tank structure, the piping, and the pumps installed into CargoMax?

MR. MATTHEWS: The tanks I figured in with the fructose weight. I know the weight of the tanks. The piping itself, there were no upgrades to the CargoMax in regards to that that I know of.

MR. [redacted] Okay. When you did load fructose in CargoMax, I didn't see anywhere where there was a fructose tank in there.

MR. MATTHEWS: On the stow plans? No, I wrote it in.

MR. [redacted] Right, okay. And so were you putting it in as a -- was it called something else?

MR. MATTHEWS: A container. It would be, if you look up in 4A, you would see two containers probably about 75 tons a piece, 80 tons a piece, that would be them. And in 4 Bravo, you would see two containers on the port side and two containers on the starboard side with the same thing.

MR. [redacted] And when you loaded them in there, how did the centers of gravity get inputted for them?

MR. MATTHEWS: That would be whatever the computer would figure as a center of gravity for a container.

MR. [redacted] Okay, okay. Then did you concern yourself with the loading of the tanks in terms of how many were partially filled?

MR. MATTHEWS: You're talking fructose tanks?

MR. [redacted] No, just any tank in general, the consumables on board, the ballast tanks.

MR. MATTHEWS: The only ballast tanks that I dealt with were the working ballast tanks, the 1B

starboard and the one in the center line. Generally, they came up from San Juan full. Going southbound, we would drop them down as necessary to do that juggling act with all the variables to have an acceptable GM margin and available dead weight. So that's the only two tanks that I would actually concern myself with.

MR. [redacted] Thank you. Would it be fair to say then that, at times, the ballast tanks were partially filled?

MR. MATTHEWS: Oh, going southbound, all the time.

MR. [redacted] Okay. Also, were you aware of the condition of the cross-connections between any port and starboard double-bottom or D-tank paired tanks (phonetic)?

MR. MATTHEWS: No.

MR. [redacted] Okay. Are you aware if CargoMax provided you any limitations for the loading of trailers or vehicles in the holds in order to prevent overloading of the individual decks?

MR. MATTHEWS: CargoMax did -- for RoRo? No, CargoMax does not do that.

MR. [redacted] Okay. So would you have referred to a capacity plan or something else to ensure the loading --

MR. MATTHEWS: On occasions, when we did have some very heavy cargo to be loaded on the RoRo decks, I would run that by the vessel masters or the chief mates. And I know that there is the book with the (inaudible) footprint and all that type of stuff. If something looked not right, we would run it by them and they would give us the yes or the no.

MR. [redacted] That's all I have.

MR. GRUBER: All right. Tom Gruber. Just to continue back on what Mike had said before, the CargoMax program on board has to be, has to have a verification check annually against the group loading conditions. Is that same check done on the shoreside?

MR. MATTHEWS: No.

MR. GRUBER: Okay, thank you. We've been told that there was a riding (phonetic) crew doing modifications on the vessel --

MR. MATTHEWS: Correct.

MR. GRUBER: -- in preparation for the changes. Would any of what they were doing have changed the weights and centers on the vessel?

MR. MATTHEWS: Not that I know of. From what I understand, they were mostly running wires and cable. I don't know exactly what all they were doing, but I don't think it was anything really structural.

But, again, the port engineers that were involved in that would be the best ones to answer that question. I knew they were there running some cable. Beyond that, I don't know what all they were doing to prepare for the next venture on the West Coast.

MR. GRUBER: Would they have let you know if they were carrying any heavy equipment, like man lifts or anything like that, that would be --

MR. MATTHEWS: Oh, yes, yes.

MR. GRUBER: Would that have been included then in the loading condition?

MR. MATTHEWS: Yes.

MR. GRUBER: Okay. Just going back quick to the draft marks, were the draft marks fully legible on the side of the ship?

MR. MATTHEWS: Yes.

MR. GRUBER: Would -- we had noticed some discrepancies on the El Yunque and didn't know if that carried over.

MR. MATTHEWS: El Faro's are, like, brand new.

MR. GRUBER: Okay. You did the departure conditions for when they left, when the ship left Jacksonville. Do you know if the conditions were then checked, were further conditions checked for an

intermediate or the arrival condition at San Juan?

MR. MATTHEWS: In general -- you talking in general?

MR. GRUBER: Yes.

MR. MATTHEWS: For our departure conditions here, oftentimes (inaudible) have had it left in the computer and we can figure the fuel burn-off to figure the arrival conditions. And there's actually, in CargoMax there's two columns. There's an departure column and an arrival column, and if you adjusted the fuel burn for, fuel consumption going down south, then you could see both at the same time.

MR. GRUBER: Okay. And then you said your background wasn't maritime related or naval architecture related.

MR. MATTHEWS: Correct.

MR. GRUBER: Did you receive any specific training on the use of the cargo program, on how to use it?

MR. MATTHEWS: Just from the people that were in the department at the time. They told me how to do it, and working with the captains, working with the chief mates over time. Believe me, when I say the captains were over my shoulder seeing what I was doing, they were over my shoulder seeing what I was doing.

And I learned quite a lot from them, you know, the basics and some of the intricacies of the program also. So it's on-the-job training.

MR. GRUBER: Okay. I think that's all I have. Thank you, sir.

MR. O'MEARA: This is Dennis O'Meara from TOTE Services. No questions.

MR. [redacted] with the Coast Guard. You just mentioned the two columns. That was actually, one of my questions was about the burn-off. When you calculate and discuss with the ship's crew the 0.5 margin, which column --

MR. MATTHEWS: That's for departure. With a normal fuel consumption, on arrival, that would put it about 0.27 or 0.3 on arrival.

MR. [redacted] Okay. My last question is so, obviously, you weren't there for the final voyage. How confident are you that, basically, the process that you just described for us is identical or close as far as how Mr. Rodriguez -- I know that might be a hard question, but, in your interactions with him, I'm sure you've worked closely with him. Can you describe that?

MR. MATTHEWS: It's very close because I showed him how to, what I showed you, that's something I showed him to do. And in fact, when we're on the

screen there to begin with with that Excel spreadsheet, that's something he did. I did not do that. And as far as the input into CargoMax, it would be very similar to communications with the ship. So it's generally the same.

MR. [redacted] What about the, you mentioned the procedure that last hour as you take the package down to the ship, reading the draft markings, looking at the salinity and all those things. Did you show him those, as well as each of those things as well?

MR. MATTHEWS: Generally. And it's, you know, that's generally how we do it. Sometimes, we've had an issue getting our dangerous cargo manifest or reefer manifest generated in time. They'll do the drafts. They'll communicate them to us, and we'll get the paperwork to them. There have been two occasions or three occasions over the last eight years where we've actually used the bucket to get the paperwork up to them and the flash drive and everything, and he'll give me the drafts. But, again, I would always double-check the drafts myself just because that's what I do. I just check, check, check.

So there may be, generally speaking, that's how everything runs. Sometimes, the sequence is broken a little bit, but the general procedures are always

there. We're always down there at the end to watch the ship go. We're down there with last line, down there verifying that we're not too deep in the water.

In that case, when I mentioned we'd take it up with the bucket, I've already communicated by the phone with (inaudible), we would have already communicated by the phone everything looks good. They would have already checked the drafts. They would have checked the immersion table. Then they'd say, okay, we'll be up.

So let's say we had some time, like a half hour, they may raise the gangway, but they won't go until they have all the paperwork on the vessel, have it in hand, and have that load in the CargoMax to look for. Then they can say, okay, we're ready to go. You know, if, for some reason, the gangway had to come back down for something, it would come back down.

MR. [redacted] Great. I think my last question is, after the vessel departs and the captain sends his departure report, do you review that? And if so, what do you do with that?

MR. MATTHEWS: I review it. I just check, I check the drafts. There's a report that I keep. It just has the list, and he also reports the list on that departure report, if any. And there's an Excel record

that I keep of every sailing departure both at Jax (phonetic) and San Juan what the list is, if they reported, and what their drafts are, and then I compute what the trim is. That gives me an indication if San Juan or one of the ports starts having a tendency to have a little bit of a list one way or the other, I can tell them to tighten up and do something different to level it out.

But I keep those. I save them electronically, and I keep a hard copy for three months in my desk drawer. But they're saved electronically forever.

MR. [redacted] Thank you.

CHAIRMAN STOLZENBERG: Okay. And, Mike, on the phone, if you have anymore. And in the interest of time, we'll probably come back to another half-hour interview at another date if we need much more because we're essentially out of time. So Mike on the phone?

MR. KUCHARSKI: I think he handled all the questions well. Thank you, Don. (Inaudible) I heard sheets, but you give them the zip drive sometimes, the thumb drive, with the CargoMax figures on it, correct?

MR. MATTHEWS: Correct.

MR. KUCHARSKI: Okay. That's it. Thank you.

MR. MATTHEWS: Thank you.

MR. GRUBER: Tom Gruber again. Just one more question, please. Based on your experience with using the CargoMax program and your familiarity with the ship, did you notice any discrepancies between the two?

MR. MATTHEWS: Nothing significant. If I say, due to the salinity if nothing else, the draft marks may be, you know, CargoMax may show 100 tons available dead weight, 200 tons available dead weight, based on the marks. There may be 400 tons available dead weight based on the actuals. And what we already mentioned about 2 ½ degrees starboard CargoMax was the level on the observed. Other than that, no.

MR. GRUBER: Thank you.

CHAIRMAN STOLZENBERG: Okay. This is Eric Stolzenberg again. I think we'll wrap it up here. I just want to note for the record I'll take a photo of the screen we spoke to later and call it Exhibit 1, take a photo of the immersion table and call that Exhibit 2, and Mr. Matthews hand notebook, which we also referenced, I'll call Exhibit 3, and we'll attach it to the transcript.

One last question for myself is did you ever have any conversations with various captains on the El

Faro, different captains, about their opinion on the GM, minimum GM requirement? I think what we talked about is half a foot. Any concerns or --

MR. MATTHEWS: No, other than that was the target to shoot for.

CHAIRMAN STOLZENBERG: Okay. And lastly, is there anything else you'd like to change from what you said earlier? Remember I said if there's something you think you didn't say correctly, now would be a good time to say that.

MR. MATTHEWS: Not that I can recall or think of right now.

CHAIRMAN STOLZENBERG: Okay. And do you, are there any questions we should have asked you but we did not that might be important for the nature of the topics we covered today to understand?

MR. MATTHEWS: No.

CHAIRMAN STOLZENBERG: Okay.

UNIDENTIFIED SPEAKER: Briefly, Mr. Stolzenberg, you made reference to taking pictures to attach. I think we actually had two different CargoMax plans. Initially, you had the Southbound 185, which was the actual data, and the vast majority of what Mr. Matthews spoke to was SB 184 I think.

CHAIRMAN STOLZENBERG: That's correct.

UNIDENTIFIED SPEAKER: Are you (inaudible) both?

CHAIRMAN STOLZENBERG: I was only going to take a shot of 184.

UNIDENTIFIED SPEAKER: Good enough. I just wanted to be clear which one we were doing. Great. Thank you, sir.

CHAIRMAN STOLZENBERG: Okay. Thank you. Okay. That will wrap it up for today. We'll go off record. Thank you very much, Mr. Matthews.

MR. MATTHEWS: Okay, thank you.

(Whereupon, the above-referenced matter went off the record.)

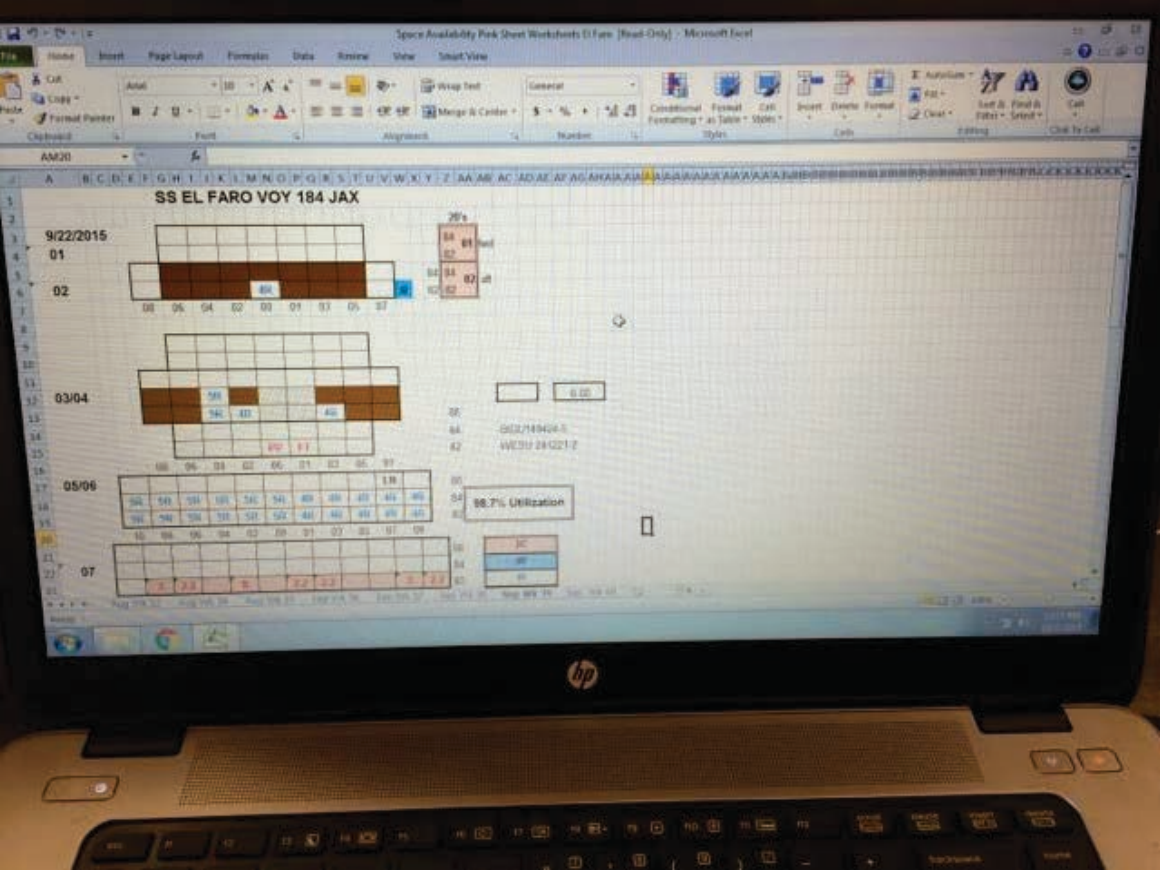
C E R T I F I C A T E

MATTER: EL FARO INCIDENT OFF THE COAST
OF THE BAHAMAS ON OCT. 1, 2015
NTSB Accident No. DCA16MM001
Interview of Donald Matthews

DATE: 12-02-14

I hereby certify that the attached transcription of page 1 to 116 inclusive are to the best of my professional ability a true, accurate, and complete record of the above referenced proceedings as contained on the provided audio recording; further that I am neither counsel for, nor related to, nor employed by any of the parties to this action in which this proceeding has taken place; and further that I am not financially nor otherwise interested in the outcome of the action.

- [redacted] -


SS EL FARO VOY 184 JAX
9/22/2015
01
02
03/04
05/06
07
98.7% Utilization

SS EL FARO VOY 184 JAX

9/22/2015

01

02

	08	06	04	02	00	01	03	05	07	
01										
01										
02										
02					4R					R

20's

	84 / 82	**01**	fwd
84 / 82	84 / 82	**02**	aft

03/04

	08	06	04	02	00	01	03	05	07
			5R						
86			5R	4R			4R		
84									
82					PP	FT			

	0.00

BIGU140424-5

WESU 201221-2

05/06

	10	08	06	04	02	00	01	03	05	07	09
86										LR	
84	5R	5R	5R	5R	5R	5R	4R	4R	4R	4R	4R
82	5R	5R	5R	5R	5R	5R	4R	4R	4R	4R	4R

98.7% Utilization

07

	12	10	08	06	04	02	01	03	05	07	09	11
86												
84												
82		3	2.2		8		2.2	2.2			3	2.2

08/09

	12	10	08	06	04	02	01	03	05	07	09	11
86												
84	4R	4R	4R	4R	4R	4R	3/6.1/8		5.1(8)		4R(3)	4R
82	4R	4R	4R	4R	4R	4R	4R	4R	4R	4R	4R(2.2	4R

R

10

	12	10	08	06	04	02	01	03	05	07	09	11
86			2.1									
84	5R	5R	5R	5R	5R	5R	5R	5R	5R	5R	5R	3/8
82	5R	5R	5R	5R	5R	5R	5R	5R	5R	5R	5R	5R

R

12

	12	10	08	06	04	02	01	03	05	07	09	11
										8		
		2.1	2.1				3					

R

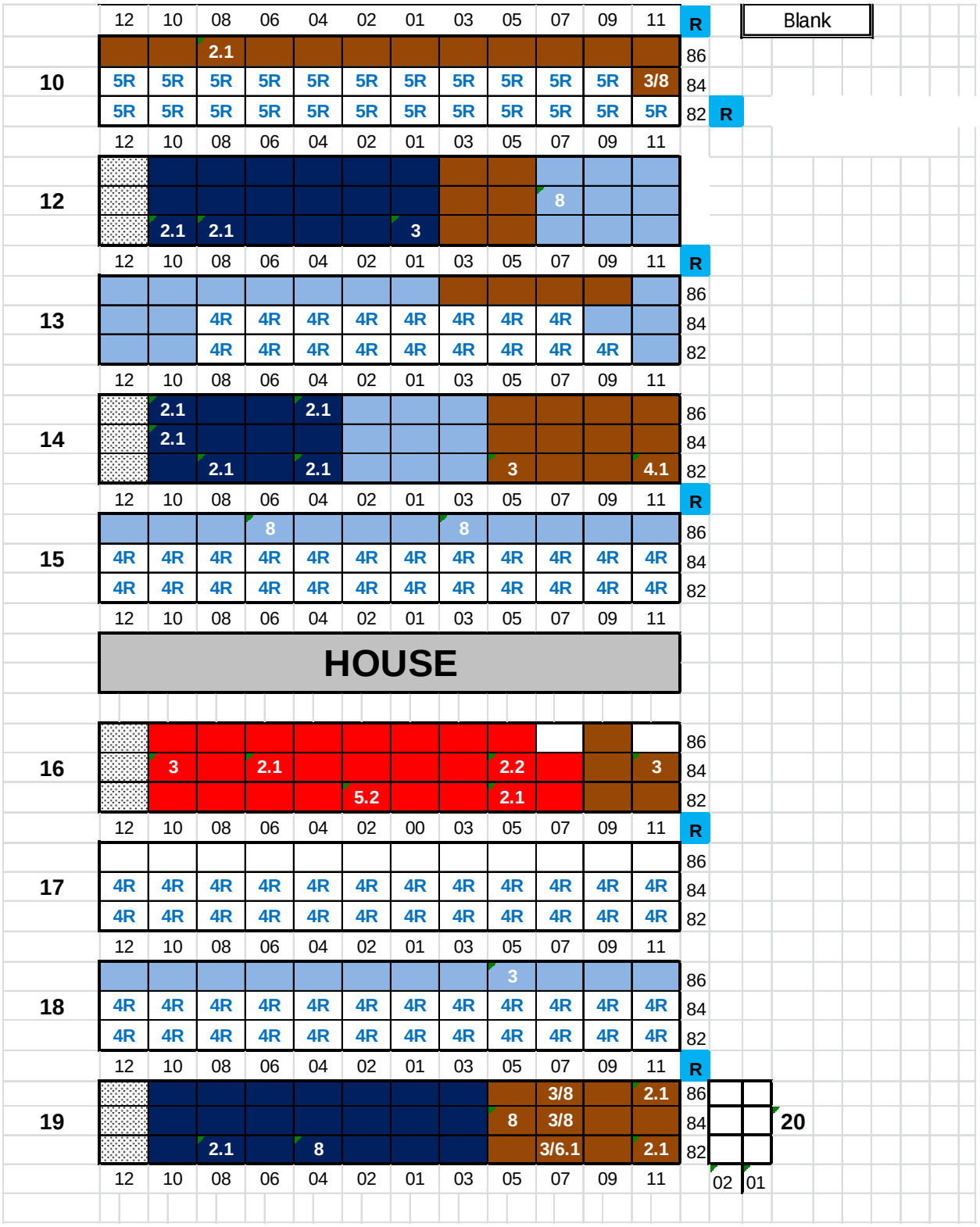
13

	12	10	08	06	04	02	01	03	05	07	09	11
86												
84			4R	4R	4R	4R	4R	4R	4R	4R		
82			4R	4R	4R	4R	4R	4R	4R	4R	4R	

14

	12	10	08	06	04	02	01	03	05	07	09	11
86		2.1			2.1							
84		2.1										
82			2.1		2.1				3			4.1

Legend
20'
40'
4R
45
5R
48
53
Blank



T:MarineOps/PortReports/2015/EL FARO 2015/Space Availability Pink Sheet Worksheets El Faro Work Sheet **Sep Wk 39**

Immersion table for "EL" Class Vessels

Water Density	Fully Laden Midship Draft	Fully Laden Midship Freeboard	Heel	Adjustment to Observed Midship Draft or Freeboard
1.025 (SW)	30'-02 3/8"	12'-01"	0.25°	+/- 2 3/8"
1.024	30'-02 5/8"	12'-00 3/4"	0.50°	+/- 4 7/8"
1.023	30'-03"	12'-00 3/8"	0.75°	+/- 7 1/4"
1.022	30'-03 1/4"	12'-00 1/8"	1.00°	+/- 9 5/8"
1.021	30'-03 5/8"	11'-11 3/4"	1.25°	+/- 1'-00"
1.020	30'-03 7/8"	11'-11 1/2"	1.50°	+/- 1'-02 1/2"
1.019	30'-04 1/8"	11'-11 1/4"	1.75°	+/- 1'-04 7/8"
1.018	30'-04 1/2"	11'-10 7/8"	2.00°	+/- 1'-07 1/4"
1.017	30'-04 3/4"	11'-10 5/8"	2.25°	+/- 1'-09 5/8"
1.016	30'-05 1/8"	11'-10 1/4"	2.50°	+/- 2'-00 1/8"
✓ 1.015	30'-05 3/8"	11'-10"	2.75°	+/- 2'-02 1/2"
1.014	30'-05 5/8"	11'-09 3/4"	3.00°	+/- 2'-04 7/8"
1.013	30'-06"	11'-09 3/8"		
1.012	30'-06 1/4"	11'-09 1/8"		
1.011	30'-06 5/8"	11'-08 3/4"		
1.010	30'-06 7/8"	11'-08 1/2"		
1.009	30'-07 1/8"	11'-08 1/4"		
1.008	30'-07 1/2"	11'-07 7/8"		
1.007	30'-07 3/4"	11'-07 5/8"		
1.006	30'-08 1/8"	11'-07 1/4"		
1.005	30'-08 3/8"	11'-07"		
1.004	30'-08 5/8"	11'-06 3/4"		
1.003	30'-09"	11'-06 3/8"		
1.002	30'-09 1/4"	11'-06 1/8"		
1.001	30'-09 5/8"	11'-05 3/4"		
1.000 (FW)	30'-09 7/8"	11'-05 1/2"		

125 TONS PER INCH.

Please note that measurements in each table have been rounded to the nearest 1/8".

2130

28-04
32-06

30-06 P
29-03 S
1.008

29-10.5
mean

2236

TABLE OF CORRECTIONS TO TRANSCRIPT OF INTERVIEW FOR
DON MATTHEWS
TAKEN ON
DECEMBER 2, 2015

PAGE NUMBER	LINE NUMBER	CURRENT WORDING	CORRECTED WORDING
7	15	...AND WENT	...AND WENT IN
7	20	WENT TO OPEN ARMY	WENT TO OAKLAND ARMY
7	22	(INAUDIBLE)	MILITARY OCEAN TERMINAL, BAY AREA
8	7	TO OPEN ARMY	TO OAKLAND ARMY
8	22	GOING TO THE MILITARY	SHIPS THAT WENT TO MILITARY
9	4	(INAUDIBLE)	KAISERSL AUJERN
9	5	STATES IN FORT LEE	STATES TO FORT LEE
9	7	CALLED A LOG (INAUDIBLE)	CALLED LOGEX
9	11	WHATEVER	WHO EVER
9	16	CAPTAIN IN THE	CAPTAIN AND WENT IN THE
9	17	MID MIC	MTMC
9	19	OPEN ARMY	OAKLAND ARMY
9	23	NAVIERAS IN PUERTO	NAVIERAS DE PUERTO RICO
10	13	, I WENT THROUGH A	, I WENT FROM MARINE
11	7	THEY KNOW	THEY NEED
11	21	PIT MAN	PIVOT MAN
11	25	INVENTS INTERFACES	INTERFACES
12	10	SDCW	STCW
13	10	WAY	WEIGHT
15	4	(INAUDIBLE)	LOADED
15	4	COMPARE	COMPUTE
15	9	(INAUDIBLE)	B STARBOARD
15	10	KEEP, THE	KEEP WITH THE
15	14	WANTED CARGO	WANTED FOR CARGO
16	10	VERIZON	HORIZON
16	16	ROLL-OUT	ROLOC
16	17	CHASSIS TOGETHER	CHASSIS UP, TOGETHER
16	24	LINKS	LENGTHS
17	21	THREE OFF	3A
19	17	THREE HIGH	TWO HIGH
19	20	WELLS	CELLS
19	25	(INAUDIBLE)	PONCE
20	1	(INAUDIBLE) CASES	LOADCASES
21	8	DRIVE	DRY
23	9	(INAUDIBLE)	SPINNAKER
24	8	LOW, LOW	LO-LO
25	7	THREE-YEAR	THREE OR
31	15	TRANSFERS	TRANSVERSE
33	12	COTTONBACH	KALTENBACH
34	17	OVER	LEAVE
40	20	ROLL-OUT	ROLOL
42	4	(INAUDIBLE)	HERBERT

42	18	COMPUTER	COMPUTE
43	25	MADE	MATE
44	4	(INAUDIBLE)	STARBOARD
45	1	THEM ARE	THAT NUMBER
49	14	(INAUDIBLE)	LIST
53	11	CHINA	---
54	8	(INAUDIBLE)	TRIM
54	9	WRIST	LIST
56	15	(INAUDIBLE)	PORT SIDE
57	17	FERGUSON	TORRES
60	16	OBSERVES	OBSERVED
80	10	OCULOMETER	INCLINOMETER
82	6	SOFT	SALT
90	17	BBS	BVS
90	17	WEAPON	WEATHER
90	25	BBS	BVS
91	14	BBS	BVS
91	16	BBS	BVS
91	25	BBS	BVS
92	4	BBS	BVS
92	10	BBS	BVS
92	11	BBS	BVS
100	1	FUEL	FULL
101	20	SECURITY	SECURING

If to the best of your knowledge, no corrections are needed kindly circle the statement "no corrections needed" and initial in the space provided.

NO CORRECTIONS NEED. _____
Initials

DONALD R MATTHEWS
Printed Name of Person providing the above information

[redacted]
Signature of Person providing the above information

3 JAN 16
Date

47422.doc